NorthShore
University HealthSystem

Department of Obstetrics and Gynecology

2020 Department Report

Collaborative Care and Pioneering Research

Chairman's Message

Dr. Richard Silver

Pioneering research continues to be at the heart of NorthShore University HealthSystem's (NorthShore's) Department of Obstetrics and Gynecology. From a broad array of novel clinical trials to sophisticated laboratory studies, our collaborative team is focused on improving patient care and outcomes today while driving discovery for future lifesaving prevention and treatment approaches.

Like our colleagues here at NorthShore and across the globe, we faced the unique challenges of delivering the highest level of care to women and their families during an unprecedented COVID-19 pandemic. Each and every team member across all our specialties worked creatively to overcome the challenges and continue to make things happen safely for our patients, our staff and our trainees.

We came together as a Department in ways we have never had to before, redesigned workflows, and pivoted effectively as a team to ensure excellent and compassionate care. Despite the global pandemic, we remained committed to research and education as well as sustained clinical studies and academic output.

One difference you will note related to the pandemic is that this annual report highlights two years of work instead of one. Those two years represent an enormously successful period in terms of external funding in multiple areas and significant new research support. More details on the Department's research initiatives and progress are highlighted in the pages that follow.

With continued support from the National Institutes of Health (NIH) and other federal grants, we are proud of our robust research portfolio and the opportunity to advance care for women and children here and beyond the walls of our own hospitals.

We modified the education experience for our residents and medical students due to COVID-19 but were met with uniformly positive feedback from these future physician leaders.

In the past year, we also welcomed our new colleagues from Swedish Hospital and are working collaboratively in many of our specialties, including Maternal-Fetal Medicine (MFM) and Gynecologic Oncology. We look forward to developing a relationship with the newest member of the NorthShore family, Northwest Community Healthcare.

While I am enormously proud of our gifted team, I am also especially grateful to the patients who not only entrust us with their care, but also choose to enroll in our clinical trials. Clearly, without their trust and selflessness, we would be unable to advance vital research. We are fortunate to care for so many women and families who share our vision and our desire to expand knowledge that will provide improved care for future generations.

I am gratified to have the support of NorthShore's leadership and the expertise of our talented physician-scientists and dedicated research staff who come together every day committed to our mission "to preserve and improve human life." Indeed, it takes a large and devoted team to sustain our high-caliber endeavors.

On behalf of all the women and families we are privileged to serve, I extend our heartfelt gratitude to our many philanthropic supporters. Charitable donations are essential to our ability to sustain and grow our vital research and the many aspects of our patient-centered, compassionate care. My sincere thanks to each one of our donors. As you review this report, I hope you find that the accomplishments of our Department have exceeded your expectations.

Richard K. Silver, MD
The Auxiliary of NorthShore Chair of Obstetrics and Gynecology
Department of Obstetrics and Gynecology
Clinical Professor and Chief Academic Officer
NorthShore University HealthSystem

Department Highlights

COVID-19 Response 1

Division Reports

Gynecology 4
Obstetrics 5
Maternal-Fetal Medicine 6
Gynecological Pain and Minimally Invasive Surgery 8
Gynecologic Oncology 10
Reproductive Endocrinology and Infertility 11
Urogynecology and Reconstructive Surgery 12

Special Programs Report

Evanston Co-Perinatal Center 14
Perinatal Depression Program 15
Perinatal Family Support Center 16

Medical Education

Undergraduate Program 17
Graduate Program 18
Fellowship Programs 19

Scholarship

Publications 21
Presentations 24
Grants and Sponsored Research 28

Clinical Trials 32

Staff

Department Growth 35
Service to the Department Committees 37
Staff Directory 38

NorthShore Foundation Inside Back Cover

Department Highlights: COVID-19 Response

As we faced new and significant challenges brought on by the COVID-19 pandemic, our dedicated teams worked together to develop new practices to protect patient and staff safety while continuing to offer the high level of compassionate care our patients and families deserve.

Clinical Response

Labor & Delivery and Surgery

The Division of Obstetrics came together collaboratively and quickly, redesigning workflows and adopting a five-day platoon shift model. Hospital-based care teams rotated between on-duty shifts and time away to limit potential staff exposure to COVID-19 while ensuring that patients remained safe and well cared for. Team members worked to "over communicate" with patients' physicians and care providers maintaining a seamless approach for patients and each other. Nursing staff on the frontlines were critical to the success of this innovative model.

Members of the NorthShore Medical Group Urogynecology, Gynecology and Gynecological Pain and Minimally Invasive Surgery Divisions all played critical roles in covering emergent gynecological cases during the initial COVID-19 surge. Like Labor and Delivery teams, they adopted a platoon staffing model to maintain a steady contingent of providers, while limiting potential exposure.

Ellen Hall, RN (left) consults with patient Jannice McCool at Highland Park Hospital after delivery.

Academics

Maternal-Fetal Medicine (MFM) Fellowship

The COVID-19 pandemic affected virtually every aspect of life, and our MFM fellowship was no exception. In spite of all the obstacles presented by the pandemic, our fellows were able to come together and meet the challenge of providing care to our patients and their families, support their colleagues and still find time to advance their research endeavors.

Some fellows changed their schedule and devoted three consecutive months to labor and delivery. Another moved out of his home for multiple months to live in an apartment near the medical center so he could provide care for patients while concurrently avoiding the risk of exposing his family to the virus. Yet another developed a novel telehealth prenatal care protocol for our clinic patients and spent hours every day contacting patients to reassure them during a time of uncertainty.

All of our fellows continued to find ways to adapt their research goals to ensure success under the restrictive environment of the pandemic. Demonstrating how committed our fellows and their research mentors are to maintaining a priority of scientific inquiry, our four fellows completed 12 abstracts accepted for presentation at the 2021 Society for Maternal-Fetal Medicine (SMFM) national meeting!

Support Services

Perinatal Family Support Center

The impact of COVID-19 has manifested in myriad ways for high-risk patients and their families. Mental health concerns emerged or intensified as pregnant patients worried about how the virus might affect them and their baby. They expressed sadness at necessary visitor restrictions, especially during longer antepartum admissions, intensifying the feelings of anxiety, isolation and worry.

Many patients experienced financial hardship due to job loss, affecting their ability to stay current on their rent or mortgage payments, utility bills, and car and house repairs, in addition to basic necessities such as food and medications.

The Perinatal Family Support staff strived to provide the best care and support possible under challenging circumstances: We used the telephone instead of in-person visits to protect our patients and ourselves from COVID-19 exposure, and we took advantage of NorthShore*Connect* messaging for a reliable, safe means of contact. We educated patients about the potential of perinatal

(continued)

Perinatal Family Support Center (continued)

Perinatal Family Support Center team

mood challenges and linked patients with therapeutic and community resources, as needed. And because of the generosity of our donors, in addition to in-kind donations of diapers and other baby items, we were able to reduce some patients' stress by providing financial assistance in the form of gift cards for groceries, household necessities, gasoline and other transportation costs.

"I don't think I can adequately express my gratitude to you. Your support was the reason I was able to cope through this journey. Thank you for all you have done, from the bottom of my heart."

—Grateful Perinatal Family Support Center Patient

Research

Illinois Perinatal Quality Collaborative

The Illinois Perinatal Quality Collaborative (ILPQC) (led by Ann Borders, MD, MPH) adapted to the COVID-19 pandemic by creating fully virtual collaborative learning opportunities to support Illinois birthing hospitals:

- Virtual spring (May 2020) and fall (October 2020) conferences were held for hospital teams including physicians, nurses, allied health professionals, and public health officials. Each session achieved record attendance with 400 and 600 attendees at the spring and fall conference, respectively.
- ILPQC partnered with the IDPH to host frequent COVID-19 Strategies for OB/Neonatal Units webinars starting in March 2020. These webinars provide Illinois birthing hospitals with updates on COVID-19 state and national recommendations and provide a forum for Illinois hospitals to share their strategies for caring for patients.
  - Between March 2020 and December 2020, ILPQC held 17 webinars with more than 40 physician and nurse leaders at each meeting from across. across 25 hospitals sharing their patient care experiences and suggestions.
  - In a survey given to hospitals from the IDPH, 98% of hospitals reported that staff had participated in ILPQC COVID-19 webinars and 98% of hospitals reported these webinars were helpful for sharing information and resources.
  - ILPQC has created and curates ilpqc.org/covid-19-information, a COVID-19 webpage with up-to-date state and national resources and Illinois hospital example protocols.

COVID-19 Placenta Study

Ann Borders, MD, MPH and her team launched the COVID-19 Placenta Study in July of 2020. This prospective study collected placental tissue and cord blood spots from people who experienced COVID-19 infection at any point during pregnancy.

Any patient who was COVID-19 positive during pregnancy was eligible for the study. Placental histology and gene expression will be analyzed from those with COVID-19 infection and compared to a historical cohort without infection. The study was conducted in collaboration with Prisma Health in South Carolina. The goal is to recruit 35 participants from NorthShore.

COVID-19 and Perinatal Experiences

On August 17, 2020, Dr. Borders' team launched the COVID-19 and Perinatal Experiences (COPE) Study. This cross-sectional survey-based project collects patient-reported experiences of stress, hardship and support during the COVID-19 outbreak.

All NorthShore patients who had delivered in the previous six months or were currently pregnant were eligible, and survey results are linked to NorthShore's electronic health record (EHR) data on infant and parent health outcomes.

The study is being conducted in collaboration with Oregon State University and New York University. The team aims to recruit 800 participants into the study. Within the first week of the study's launch, they successfully recruited 405 patients.

Dr. Ann Borders' team is leading innovative research initiatives aimed at improving pregnancy outcomes for vulnerable populations. (From left) Dr. Lauren Keenan-Devlin, Dr. Borders, Dr. Linda Ernst and Northwestern University's Dr. Gregory Miller are key partners in these initiatives.

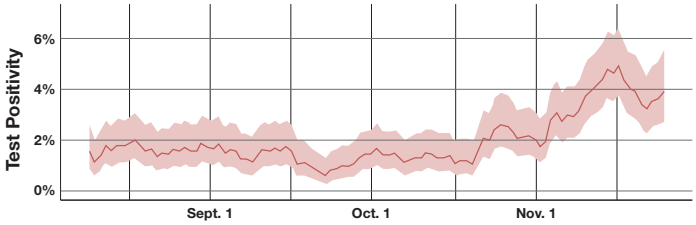
Participation in the Illinois State Surveillance Program

Starting in September 2020, NorthShore Evanston and Highland Park Hospitals began participating in the Illinois Department of Public Health (IDPH) Sentinel Surveillance System to monitor COVID-19 positivity rates among pregnant people.

Because universal testing in Labor and Delivery represents a consistent population, positivity rates are less influenced by changes in who is getting tested when compared to general population measures and can be used to estimate changes in transmission statewide. Numbers of deliveries, women tested within three days of delivery, and positive and asymptomatic tests are submitted on a weekly basis by 26 hospitals that are performing universal testing.

2020 COVID-19 Test Positivity Rate: Labor & Delivery Sentinel Surveillance System

7-Day Moving Average and 95% Binomial Confidence Intervals



Source: Labor & Deivery Pilot Surveillance Data (11/27/20).

From mid-June through the end of November, among 19,943 deliveries in the database, 96.6% were tested.

Among those tested, 2% were positive, with 78.5% of positive cases asymptomatic at the time.

At NorthShore, since late September, 90% of delivering patients were tested, with 2% positive and 85% of those asymptomatic.

Pelvic Pain

During the months we were unable to bring participants in for visits, the Gynecology Research Lab (GyRL) was busy. We figured out how to do our work remotely and then safely in person once participants were allowed to come back for visits.

We continue to refine how to conduct some of our research virtually for future participants who are unable to participate in person. In addition to adjusting study protocols to meet participant needs in a virtual environment, the team made significant contributions to the literature—completing four publications and three submissions, with another three submissions in progress.

E-consenting for Perinatal Depression Program

The Scaling Up Maternal Mental health care by Increasing access to Treatment (SUMMIT) study led by Richard Silver, MD, has adapted and excelled at recruiting participants into the study during this challenging year.

Sixty participants provided e-consent via REDCap, allowing our study to continue to provide important telemedicine perinatal psychological treatment. In addition, study participants remain engaged with an overall study three-month follow-up completion rate of 95.6%.

Similarly, Dr. Silver's research group made excellent progress in the MomMoodBooster study of a web-based program for perinatal depression by consenting 91 patients during the COVID-19 pandemic, which is nearly half of the overall expected recruitment number.

Convalescent Plasma Study

When help was needed for COVID-19 research on convalescent plasma, three OB/GYN researchers stepped up and effectively shared their time outside of the department. They scheduled donors who had recovered from COVID-19 and volunteered to donate convalescent plasma, screened donors by nasopharyngeal swab PCR, compiled donor questionnaires, and had blood samples drawn and shipped out to be tested for COVID-19 antibodies.

As a result of their efforts, convalescent plasma was available as a treatment for patients at Swedish Hospital before any other effective treatments had been identified. Their efforts culminated in two published articles:

- ***Persistence of SARS-CoV-2 nasopharyngeal swab PCR positivity in COVID-19 convalescent plasma donors***

  Authors: Sachie Ikegami, Robert Benirschke, Tara Flanagan, **Nicole Tanna**, **Tovah Klein**, **Rita Elue**, Patricia Debosz, Jessica Mallek, Gregory Wright, Perry Guariglia, Jason Kang and Thomas J. Gniadek

  Transfusion, Volume 60, Issue 12. First published: 24 August 2020

  doi.org/10.1111/trf.16015 onlinelibrary.wiley.com/doi/full/10.1111/trf.16015

- ***Rapidly Establishing a Hospital-Based Convalescent Plasma Collection Center With the Alyx Apheresis Collection Device.***

  Authors: **Tovah Klein**, **Rita Elue**, Sachie Ikegami, Christopher Mikkelson, Gregory Wright, Jessica Mallek, Jason Kang, David J. Sullivan and Thomas J. Gniadek

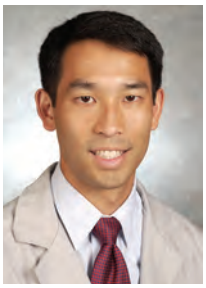
  Acad Pathol 2021 Jan-Dec;8:2374289520987236. Epub 2021 Feb 10.

  pubfacts.com/detail/33623818/Rapidly-Establishing-a-Hospital-Based-Convalescent-Plasma-Collection-Center-With-the-Alyx-Apheresis

Division Highlights: Overcoming Challenges

Our collaborative team of physicians and other caregivers throughout the Department is dedicated to providing the best possible patient experience, working together to continually improve patient care, safety and outcomes.

Division of Gynecology



Frank Tu, MD, MPH

Vice Chair of Quality, Division Director and Clinical Professor

Jeremy Miller, MD

Associate Director

The Division of Gynecology promotes evidence-based procedural management of gynecological disorders throughout the continuum of outpatient and inpatient settings. Members are committed to lifelong and collaborative learning for the benefit of our patients. We enjoy a strong relationship with hospital-based quality in support of safety, cost-effectiveness and patient-centered care.

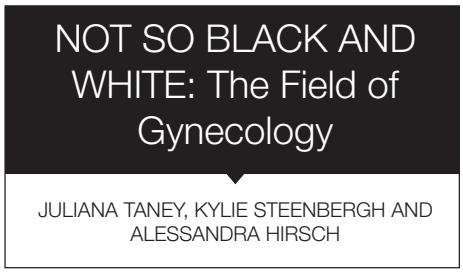
2019–2020 **Highlights**

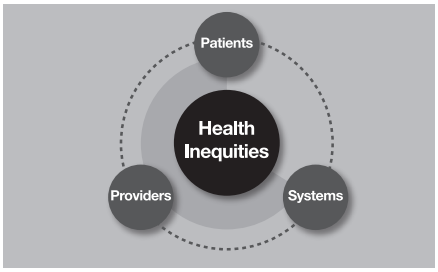
Surgical volume for the Division is strong, even as the system implemented protocols limiting Operating Room time to maintain patient and staff safety. In fiscal year 2020, the Division performed 2,756 surgical cases.

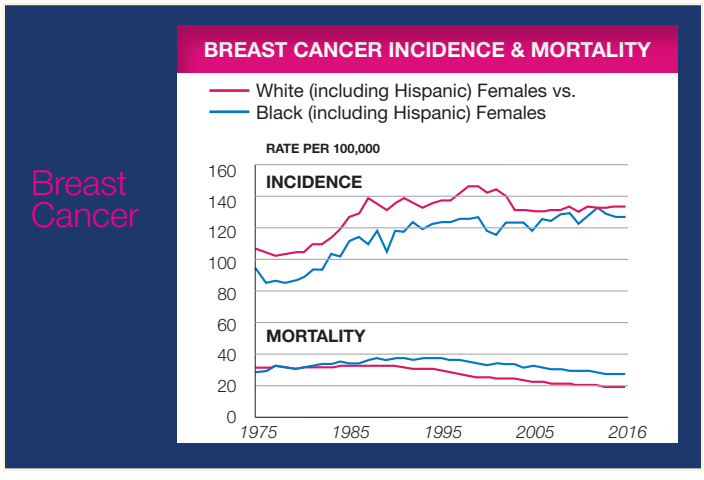
In 2020, the Division began working to further reduce hysterectomy surgical site infection (SSI) rates. Mary Tilley Jenkins Vogel, MD, Gynecologic Oncology, has led efforts to consider additional measures, including surgical bundles and best practices. Recommendations to drive further reductions in SSI rates are anticipated in the coming year.

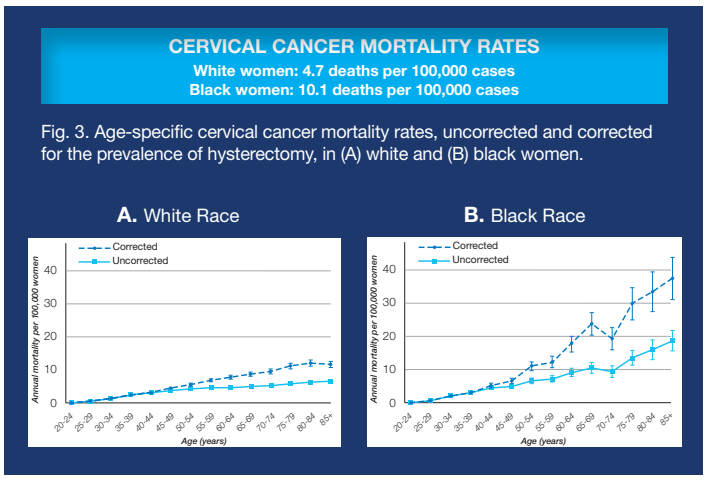
The Division maintains a robust peer-review process of our ongoing care and hosts a multidisciplinary Gynecology Quality Committee, chaired by Jeremy Miller, MD. Cases for Committee review are selected from a list identified by specific criteria that may be related to surgical complications. In 2020, the Committee reviewed 28 cases. The process continues to provide additional education and best practices for Department members with a goal of overall improved patient care and safety.

In 2020, Gynecology residents produced two high-quality Grand Rounds presentations related to care issues identified by the Gynecology Quality Committee, including the timely issue of “Consent and the Pelvic Exam: A Look at the Past and the Present” and “Not So Black and White: The Field of Gynecology.”









Division of Obstetrics

Mark Neerhof, DO
Division Director and Clinical Associate Professor

Marion Jelcz, MD
Associate Director and Senior Clinician Educator

The Division of Obstetrics is dedicated to preserving and improving the health of women and newborn infants.

We are focused on providing the highest standard of care both during and after pregnancy. We provide unsurpassed educational opportunities for students, residents and fellows in an effort to ensure that clinical excellence will be perpetuated. We are also committed to increasing the body of knowledge in women's health through research.

2019–2020 **Highlights**

There are 88 obstetricians, seven family practitioners and 16 midwives providing obstetric care at NorthShore.

In fiscal year 2020, there were 4,593 deliveries at NorthShore Evanston and Highland Park Hospitals. Evanston Hospital also serves as a tertiary referral center for patients with pregnancy complications in the north and northwest suburbs of Chicago.

NorthShore ranks in the top quartile compared to hospitals of similar size and acuity with respect to our primary cesarean section rate and repeat cesarean section rate. We also rank in the top quartile with respect to the incidence of postpartum infections.

In October of 2018, we introduced Enhanced Recovery After Surgery (ERAS) for cesarean section at Evanston Hospital. ERAS is a comprehensive, multimodal approach to surgery developed to minimize pain, enhance recovery and optimize return to normal function.

ERAS for cesarean section has been very well received by patients who report good pain control and an enhanced ability to return to normal activities. ERAS has also reduced the length of stay after cesarean section from four days to two and one-half days and has reduced the use of narcotics by 80%.

We are currently introducing nitrous oxide for analgesia in labor and delivery at NorthShore. The goal of this initiative is to give patients additional options for pain management to enhance the patient experience and satisfaction as well as safety.

The Illinois Perinatal Quality Collaborative (ILPQC) was founded by one of our Division members, Ann Borders, MD, MPH. Dr. Borders and several of our Division members have assumed leading roles in the ILPQC's initiatives. Those initiatives include Obstetric Hemorrhage, Hypertension in Pregnancy, Immediate Postpartum Long-Acting Reversible Contraceptives, and Mothers and Newborns Affected by Opioids.

The newest ILPQC initiative is Promoting Vaginal Birth. Created in 2020, this initiative's primary aim is that at least 70% of participating hospitals will be at or below the Healthy People 2020 goal of 24.7% cesarean delivery rate among nulliparous, term, singleton, vertex (NTSV) births by December 31, 2022. Our Division shares the goals of these initiatives to optimize safety and outcomes and remains committed to sustaining these efforts in the future.

FY2020 CLINICAL OUTCOMES

	Evanston Hospital	Vizient Peer Benchmark
Total Deliveries	3,411	
Primary CS	14.5%	17.2%
Repeat CS	11.1%	14.7%
Total CS	25.7%	31.9%

	Highland Park Hospital	Vizient Peer Benchmark
Total Deliveries	1,182	
Primary CS	14.5%	16.0%
Repeat CS	14.4%	14.5%
Total CS	28.8%	30.6%

Division of Maternal-Fetal Medicine

Scott MacGregor, DO

Division Director and Clinical Professor

Vice Chair for Specialty Care

The Division of Maternal-Fetal Medicine (MFM) consists of a group of specialists committed to clinical service, research and educational opportunities related to patients with high-risk pregnancies. The Division's commitment to quality and loyalty is evident in the Fetal Diagnostic Centers (FDCs) of the Centers for Maternal and Fetal Health (CMFH) at Evanston Hospital and in each of the six satellite sites throughout the north and northwest Chicago metropolitan area. The CMFH consolidates the services of the Division of Maternal-Fetal Medicine and the FDCs offering integrated and advanced technology and services.

2019–2020 **Highlights**

Clinical

The Division of Maternal-Fetal Medicine (MFM) has continued our commitment to quality improvement in clinical services, research activities and educational opportunities in the past year. Our group's primary clinical site is Evanston Hospital, which underwent renovation in 2019. In addition, we provide services at six other FDC sites in Glenbrook, Highland Park, St. Francis–Evanston, Arlington Heights, Libertyville and Gurnee. In 2020, the Division began providing services at Swedish Hospital.

- The FDCs provide more than 30,000 services annually. The centers are American Institute of Ultrasound in Medicine (AIUM) certified. Our ultrasonographers maintain certification in first trimester genetic screening (both nuchal translucency and nasal bone), and the CMFH continues to be one of the leaders in genetic screening and testing for fetal aneuploidy.
- MFM (and Pediatrics) at NorthShore has begun a joint venture with Advocate Children's Hospital and the University of Chicago Medicine Comer Children's Hospital to expand services and improve quality for patients throughout the service areas of the two healthcare systems—creating the Chicagoland Children's Health Alliance.

Academic

Resident Education: NorthShore is the primary affiliate site for the University of Chicago Obstetrics and Gynecology Residency training program. Barrett Robinson, MD, MPH, is the Site Co-Director at Evanston for the residency program and focuses on obstetrical training of the residents.

MFM Fellow Education: NorthShore is the primary site for the University of Chicago MFM Fellowship training program under the direction of David Ouyang, MD. Our four fellows—Caitlin MacGregor, MD, Samantha de los Reyes, MD, Sunitha Suresh, MD, and Nikolina Docheva, MD—are actively involved in our clinical services and research activities.

Simulation Education: Ian Grable, MD, MPH, provides leadership of curriculum in Obstetrics for the Grainger Center for Simulation and Innovation with simulation training for physicians, fellows, residents and students. This year's simulations have included numerous training sessions for the students, residents and MFM fellows.

Student Education: The CMFH and FDCs provide educational opportunities primarily at our Evanston site for various student learners. These learners include ongoing rotations for medical students from many different schools, ultrasound technician students from Triton College, and physician-assistant students from Rosalind Franklin University and Midwestern University.

Research

We are a participating member (partnering with Northwestern) in the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)-sponsored MFM Unit (MFMU) Network under the direction of Beth Plunkett, MD, MPH, Vice Chair of Reproductive Biology Research for the Department of Obstetrics and Gynecology, and the Site Principal Investigator for the NICHD-sponsored MFMU Network. The MFMU includes only 14 sites nationwide and provides our patients access to the most innovative and important clinical trials. Current studies include a randomized trial comparing treatments in patients with twin pregnancies and shortened cervix to reduce preterm delivery, a randomized trial comparing treatments in singleton pregnancies with shortened cervix to reduce preterm delivery, a randomized trial of tranexamic acid for the prevention of obstetric hemorrhage after cesarean delivery, a randomized trial of continuous positive airway pressure for sleep apnea in pregnancy, and a randomized non-inferiority trial comparing shared decision making around pain management to a set opioid prescription after C-sections. The MFMU is also involved in two registries, including one related to COVID-19 and pregnancy and the other exploring premature birth.

Studies Driving New Standard of Care

A routine 20-week appointment during Judy Shammo's first pregnancy revealed a shortened cervix that could potentially lead to preterm labor. Understandably alarmed, Shammo was immediately referred to the Maternal-Fetal Medicine group and Beth Plunkett, MD, MPH.

"It was really scary to be told that I was a high-risk pregnancy," said 30-year-old Shammo, who learned from Dr. Plunkett that she qualified for an MFMU study investigating the use of a vaginal pessary designed to reduce preterm birth in women with a short cervix.

Dr. Beth Plunkett

"Dr. Plunkett did a nice job of explaining everything, and it felt like the right option. We had our fingers crossed that we would be randomized into the non-control group," said Shammo. "I wanted to do the study both for myself and to help these doctors keep doing the wonderful work they're doing."

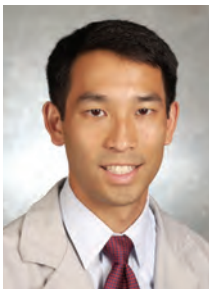
Shammo had the pessary placed and was followed closely by the MFM research team until she delivered her healthy daughter Sophia at 39 weeks. "The care I received was incredible. At a time in my life when I felt like I had no control, this really made me feel like I was doing something to protect my baby," she recalled.

"We are very proud at NorthShore to be able to offer our patients the opportunity to participate in these important studies," said Dr. Plunkett. "The MFMU is a really selective group of clinical centers with demonstrated expertise in conducting high-quality clinical trials."

Dr. Plunkett added that patients like Shammo who choose to enroll in a study often feel like they become part of the research team and appreciate the extra level of care provided to them.

"We are so fortunate to have such a high-quality research staff. They care so much about each participant," said Dr. Plunkett, "We are grateful to be part of this impactful research network where we're changing the standard of care and exponentially improving the quality of life for women and children. And we are so grateful for our patients. Their participation is really an act of altruism."

Division of Gynecological Pain and Minimally Invasive Surgery



Frank Tu, MD, MPH

Division Director and Clinical Professor

The Division of Gynecological Pain and Minimally Invasive Surgery (GPMIS) brings the skills and experience of subspecialists in female pelvic pain disorders and laparoscopic surgery to the NorthShore clinical, academic and research community.

2019–2020 **Highlights**

The EMPATHY longitudinal study of adolescent menstrual pain experience continued to recruit patients despite the COVID-19 challenges. Led by Frank Tu, MD, MPH, and co-investigator Kevin Hellman, PhD, this study builds on their prior work to identify how pelvic organ hypersensitivity emerges.

Drs. Hellman and Tu published key findings on young women's menstrual pain and bladder pain in the *American Journal of Obstetrics and Gynecology* and *PAIN Magazine*. The team identified gynecological and neurobiological profiles of a group of women who have no history of menstrual pain who appeared to be at high risk for developing chronic pelvic pain.

This is one of the first, and likely largest, studies ever to identify women who might have undetected pain risk.

To advance understanding of neural mechanisms responsible for women's pain conditions, our research team recruited a postdoctoral scientist, Matt Kmiecik, PhD in 2020. Dr. Kmiecik is an expert in EEG analysis and recently finished a PhD in cognition and neuroscience at The University of Texas at Dallas. His addition to our team is providing important insight to clarifying brain mechanisms involved in pain in our laboratory.

Dr. Hellman taught the medical student elective course titled Neurobiology of Pain and Opioids for the third consecutive year at the University of Chicago. The students in his class co-authored "Wikipedia: A Medical Student Educational Project to Edit Wikipedia in Preparation for Practicing Evidence-Based Pain Medicine" published in the *Journal of Medical Education and Curricular Development.*

The GPMIS Division remained active with medical societies and resident teaching:

- Sangeeta Senapati, MD, MS, serves as the president of the Chicago Gynecological Society (2020–2021).
- Dr. Senapati served as president of the American Association of Gynecologic Laparoscopists (AAGL) fellowship board (2020).
- Dr. Senapati began her role as an American Board of Obstetrics and Gynecology (ABOG) board examiner in 2020.
- Dr. Tu served on the International Pelvic Pain Society (IPPS) annual program committee.
- Drs. Tu and Senapati served as moderators and faculty for the first virtual AAGL conference this fall.
- Drs. Senapati and Tu facilitated ongoing resident simulation labs during the year along with fellow Richard Cockrum, MD.

In 2020, Kevin Hellman, PhD, was awarded a $2.8 million grant from the Eunice Kennedy Shriver National Institute of Child and Human Development (NCHID). The grant, titled "Mechanistic Characterization of Uterine Pain (MCUP)," is a five-year study that aims to improve the diagnosis and treatment of menstrual pain.

Dr. Hellman's lab has pioneered novel approaches to understanding the underlying mechanisms using a combination of MRI, ultrasonography, electromyography and quantitative sensory testing.

Dr. Kevin Hellman

Research Sheds Light on Period Pain

Research assistant Gabby Ashenafi brings a unique perspective to her role in the Gynecology Research Laboratory, which is dedicated to developing better understanding and treatment of menstrual and pelvic pain. While she has never personally suffered from period pain, she has volunteered as a healthy control subject in important trials, including the Chronic Pain Risk Associated with Menstrual Period Pain (CRAMPP) Study.

"It's exciting to be part of this conversation as it's an issue that is so often kept silent. I didn't realize so many people had debilitating pain," said Ashenafi, who joined her first study while she was an undergraduate at Northwestern University. "The researchers were warm and friendly, and I loved the fact that I was making an impact in women's health in an underfunded area."

Gabby Ashenafi

In fact, Ashenafi got along so well with the research team, she participated in a research project for college credit. She joined the team after graduation and is now playing a key role helping communicate with patients and also doing bench-work in the lab run by Kevin Hellman, PhD, and Frank Tu, MD, MPH.

As an African American, Ashenafi also represents an important population in the studies, as menstrual pain is more common in African American women, she said. "There are young girls who think that having pain and heavy bleeding is the norm."

"Gabby is extraordinarily insightful, and it helps that she's also been on the other side," said Dr. Hellman. It's an exciting time at the lab as innovative studies and trials like CRAMPP are shedding new light on causes of menstrual pain, which is a significant predictor of chronic pelvic pain.

"We've made enormous progress in figuring out physiological mechanisms of period pain, and we now have three clinical trials aimed at reducing menstrual pain," said Dr. Hellman, who along with Dr. Tu has secured NIH grants in support of vital work to improve women's health.

The valuable experience and inspiration Ashenafi has gained in the lab may also help direct her future as she plans to attend the University of Michigan Medical School beginning in the fall of 2021.

Division of Gynecologic Oncology

Gustavo Rodriguez, MD

Division Director and Clinical Professor

Matthews Family Chair of Gynecologic Oncology Research

The Division of Gynecologic Oncology maintains a comprehensive clinical and research program aimed at prevention, early detection, improved treatment and survivorship for ovarian, uterine and other women's cancers. Led by Gustavo Rodriguez, MD, the Division brings together a collaborative team that employs a multidisciplinary approach to treating women with malignant or premalignant conditions of the gynecologic tract.

The Division's mission is to provide comprehensive and compassionate care to our patients while performing basic and clinical research that will make a significant impact in our community and beyond.

Patients benefit from the collaborative care and the combined experience of gynecologic oncologists, geneticists, radiologists, radiation oncologists, pathologists, and critical support services, including psychosocial oncology, palliative care, integrative medicine and nutrition.

We leverage the latest technology and innovative techniques with robotic surgery and other minimally invasive procedures.

2019–2020 **Highlights**

Clinical

- The Division continues to maintain a robust robotic surgical program. In 2020, the program expanded robotic surgical activities to Highland Park Hospital.
- The Division opened an office at Swedish Hospital to broaden the offering of medical and surgical oncology services to the city of Chicago.

Melissa Lippitt, MD, MPH, joined the Division in 2020. In addition to her fellowship training in gynecologic oncology at Johns Hopkins, she obtained a Master of Public Health degree with a concentration in epidemiologic and biostatistical methods for public health and clinical research.

Dr. Melissa Lippitt

Academic

- The Division was awarded a Diversity Supplemental Grant from the National Institutes of Health (NIH) to further support both the academic advancement of Omar Nelson, PhD, and the Division's basic laboratory and in vivo research in ovarian cancer prevention. Dr. Nelson was awarded an NIH Diversity Training Grant under Dr. Rodriguez's parent NIH grant focused on chemoprevention of ovarian and fallopian tube cancer.

Dr. Omar Nelson

- Several abstracts were accepted for presentation at the Society of Gynecologic Oncology 2020 Annual Meeting. These included data gathered (a) under the Division's Survivorship Program, detailing fear of cancer recurrence, sexual concerns, psychosocial morbidity and quality of life in gynecologic cancer survivors; (b) in the laboratory, in vivo and in vitro evidence supporting progestins and vitamin D for the prevention of ovarian and fallopian tube cancer; and (c) in the clinic summarizing our successful Enhanced Recovery After Surgery (ERAS) protocol at NorthShore, and elucidating the optimal number of cycles of chemotherapy and choice of radiation in early-stage Type II endometrial cancer.

Research

- The research team generated novel in vivo evidence of progestins and vitamin D as potent cancer preventive agents in the mouse model of fallopian tube cancer, validating a hypothesis and approach we seek to further explore in human clinical trials.
- The Division's clinical trials program has expanded under the leadership of Mary Tilley Jenkins Vogel, MD. There are currently nine clinical trials open to enrollment for patients. These include industry-sponsored clinical trials, as well as projects with the National Cancer Institute-funded NRG Oncology, formed as an amalgamation of the National Surgical Adjuvant Breast and Bowel Project, Radiation Therapy Oncology Group and Gynecologic Oncology Group. This includes three trials evaluating the addition of immunotherapy to standard-of-care treatment in upfront and recurrent endometrial and ovarian cancers.

Division of Reproductive Endocrinology and Infertility

Sigal Klipstein, MD

Division Director and Clinical Assistant Professor

The Division of Reproductive Endocrinology and Infertility consists of a group of subspecialists dedicated to diagnosing and treating female and male infertility. Our physicians work closely with patients to identify the cause of their infertility and to provide services uniquely tailored to their particular needs. Treatment options include medication, surgery, in vitro fertilization and preimplantation genetic testing of embryos to avoid transmission of inherited disorders. The Division also provides fertility preservation for patients facing treatments that may affect their reproductive capacity.

2019–2020 **Highlights**

The Division oversees a subspecialty resident clinic in reproductive endocrinology and infertility that is staffed by members of the Division to enrich the education of Obstetrics and Gynecology residents and medical students and to provide patients with access to reproductive medicine services.

Allison Rodgers, MD, Shweta Nayak, MD, Jennifer Hirshfeld-Cytron, MD, Elizabeth Puscheck, MD, MS, MBA, and Sigal Klipstein, MD, serve as medical student and resident lecturers and mentor students in the office setting.

Photo by Arnold Gonzalez

Educating a patient on the use of injectable medications to stimulate her ovaries for in vitro fertilization to acquire embryos. The embryos will be screened with preimplantation genetic testing to avoid the transmission of an inherited disease.

Dr. Hirshfeld-Cytron is the Vice President for the Chicago Coalition for Family Building, which aims to promote health and alleviate the mental and physical distress of individuals and couples diagnosed with infertility through education and financial assistance. She was an instructor at the 2020 American Society for Reproductive Medicine (ASRM) postgraduate course titled “Bridging the Gaps in Access to Care” and was a participant in the ASRM 2020 interactive session titled “Successful Strategies for Increasing Access to Infertility Care.”

Dr. Puscheck chairs the American Institute of Ultrasound Medicine (AIUM) committee to revise the national ultrasound guidelines for reproductive medicine, is on the AIUM Abstract Reviewer Committee for the annual meeting and is the AIUM Gynecologic Ultrasound Community Secretary.

She is an ASRM Abstract Reviewer: *Pediatric and Adolescent Gynecology*. She is a board examiner for the American Board of Obstetrics and Gynecology and an editorial board member for the *Fertility and Sterility* journal.

Dr. Puscheck is a member of several National Institutes of Health (NIH) study sections in the areas of reproduction and women’s health.

Dr. Klipstein is the Chair of the American Society for Reproductive Medicine (ASRM) Ethics Committee. She is a member of the ASRM COVID-19 Task Force and the American College of Obstetrics and Gynecologists (ACOG) COVID-19 Ethics Task Force and Chair of the ACOG Ethics Document Review Committee. She is a member of the medical advisory board of the Chicago Coalition for Family Building.

Dr. Klipstein is also a member of RESOLVE’s Physician’s Council, part of the National Infertility Association.

Dr. Rodgers serves as the “Ask Dr. Rodgers” medical expert on the Beat Infertility website and their podcasts supporting women facing infertility.

Dr. Nayak is a member of the medical advisory board of the Chicago Coalition for Family Building.

Division of Urogynecology and Reconstructive Surgery

Roger Goldberg, MD, MPH

Division Director and Clinical Associate Professor

The Division of Urogynecology and Reconstructive Surgery is dedicated to improving the care of women with a variety of pelvic floor abnormalities, including bladder and bowel incontinence, pelvic organ prolapse, lower urinary tract pain and infection disorders, voiding dysfunction, and female bowel and defecatory dysfunction.

The Division is actively involved in the education of University of Chicago Pritzker School of Medicine residents and medical students and also continues an Accreditation Council for Graduate Medical Education (ACGME)-approved three-year Female Pelvic Medicine and Reconstructive Surgery (FPMRS) fellowship.

Physicians within the Division are recognized nationally and internationally as a premier resource for clinical care, surgical expertise, research, informatics and quality outcomes monitoring in urogynecology.

NorthShore's Division of Urogynecology has been widely regarded as one of the most innovative centers in the world related to women's pelvic health, contributing seminal research and developing novel surgical techniques that have been adopted worldwide. This tradition continued strongly throughout 2020.

2019–2020 **Highlights**

This past year was a period of growth for the Division as Ghazaleh Rostami Nia, MD, MSc, joined us in August 2020 after successful completion of her three-year fellowship in Female Pelvic Medicine and Reconstructive Surgery (FPMRS). Dr. Rostami Nia has been appointed as Director of Research within the Division and is overseeing numerous initiatives, including our program in advanced pelvic floor imaging, using 3D pelvic floor ultrasound for more precise evaluation of complex pelvic pain, assessment of mesh and sling implants, and unexplained pelvic symptoms.

She leads several active research projects using pelvic floor imaging to identify the root causes of female urinary incontinence, bowel dysfunction and pelvic symptoms.

Convenient Saturday hours are available with the goal of maximizing flexibility for new mothers to attend the postpartum clinic, understand their symptoms, address any healing concerns and "get their body back."

Advanced pelvic floor imaging services have also recently expanded into Lake County, with 3D ultrasound technology now offered by all physicians practicing at both the Highland Park and Skokie office sites.

Sonia Dutta, MD, has assumed additional responsibilities as Assistant Director for the Division's three-year postgraduate training program in Female Pelvic Medicine and Reconstructive Surgery (FPMRS). The Division's FPMRS fellowship represents one of the most longstanding training programs in the United States, producing subspecialists who have gone on to lead premier academic departments within the United States and internationally.

Apart from her academic role, Dr. Dutta remains intensively focused on minimally invasive laparoscopic methods for the repair of advanced pelvic organ prolapse and recently served as principal investigator for an innovative new implantable therapy for the treatment of overactive bladder.

The Women's Bowel Clinic (WBC) within the Urogynecology Division further expanded its presence and impact over the past year and is poised to represent a major advancement in women's pelvic healthcare. This unique and relatively new offering within the Division of Urogynecology is the only clinic of its kind worldwide.

The clinic uses state-of-the-art dynamic 3D pelvic floor and bowel imaging, accompanied by new diagnostic methods innovated at NorthShore, to identify the underlying causes for several of the most common bowel problems impacting women—including constipation, obstructed/incomplete defecation and loss of bowel control ("bowel incontinence").

The WBC team uses a multidisciplinary approach based on each patient's individualized assessment, offering a wide range of treatment options including physical therapy and biofeedback, pelvic nerve stimulation, medication and behavioral therapy, as well as a novel minimally invasive surgical procedure for female constipation/obstructed defecation.

This outpatient surgical method was developed within the Division and typically takes just 30 minutes. Dr. Rostami and Division Director Roger Goldberg, MD, MPH, published the first clinical trial

Body After Baby
Postpartum Perineal Clinic

To schedule an appointment, or for more information, please call **(224) 251-2374.**

NorthShore University HealthSystem

northshore.org

The Division launched a brand-new "Body After Baby" Postpartum Pelvic Health Clinic devoted to women in the postpartum period and beyond who are concerned about new pelvic floor symptoms impacting their bladder, bowel, pelvic and even sexual function.

This clinic uses advanced pelvic floor imaging and a focused approach to optimizing postpartum pelvic healing, closely collaborating with pelvic floor physiotherapists and various other disciplines available at NorthShore.

on the bowel clinic and this novel surgical method and have accepted invitations to present this groundbreaking work at national meetings in the United States as well as internationally in Australia and Brazil.

The Division has continued to expand its utilization of laparoscopic surgical repair for pelvic organ prolapse, a technique that eliminates the need for an open abdominal incision. Patients undergoing complex surgery for pelvic organ prolapse at NorthShore are offered the full breadth of surgical techniques ranging from minimally invasive vaginal repairs to laparoscopic surgery methods often performed on an outpatient basis.

Laparoscopic surgery offers a quick return to activities, rapid healing and excellent clinical outcomes. The Division also routinely uses da Vinci robotic-assisted laparoscopic techniques, enabling complex reconstructive surgical procedures to be performed with great precision, using small incisions.

Adam Gafni-Kane, MD, has devoted additional time to NorthShore Medical Group's Patient Engagement Committee, working to improve the consistency with which patients experience their care at NorthShore. Dr. Gafni-Kane has steadily established urogynecology services and coverage throughout Lake County and remains keenly focused on minimally invasive surgical techniques, including laparoscopic and da Vinci robotic-assisted methods.

Peter Sand, MD, continues to contribute in research and is currently responsible for launching several studies in the Division, including one examining an implantable radiofrequency stimulator "coin" for the treatment of overactive bladder and urge urinary incontinence.

Post-pandemic, Dr. Sand is looking ahead to resuming "Update in Gynecologic Urology," an accredited CME meeting he has directed for more than 25 years, jointly supported by the University of Chicago Pritzker School of Medicine and NorthShore University HealthSystem.

Michelle Buscemi, our nurse practitioner, provides the full range of subspecialty midlevel care to patients within our Division. Michelle's compassionate and skilled care has added a highly valued additional layer of care to our team and high praise from countless patients.

She continually refines her knowledge and skill base through specialty meetings on a national scale and by participating in our academic and interdisciplinary meetings.

Trials Deliver Life-changing Relief

A special education kindergarten and first grade teacher, Catherine Williams was at her wit's end when an overactive bladder forced her to go to the bathroom every two hours. Fortunately, she is one of the many women who have found relief with the help of urogynecologist Peter Sand, MD, an expert who has dedicated his career to investigating new approaches to treating urinary incontinence.

Williams is now participating in her second study with Dr. Sand, both of which have provided enormous and life-changing relief—studies she hopes will lead to similar help for countless other women.

As a participant in "Valencia eCoin–A Pivotal Study of Subcutaneous Tibial Nerve Stimulation with eCoin for Urgency Urinary Incontinence," Williams had a small, coin-sized device implanted under the skin near the ankle that sends out electrical impulses to the tibial nerve to improve or restore normal bladder control.

"It's amazing how well it has worked," said Williams. "This gives you your life back. You don't have to know where every bathroom is when you're out."

Initial results have been so positive for Williams and others that the study has been extended so participants can keep the device in place for another year.

"Our clinical research trials offer patients exposure to treatment options that are not otherwise available while also furthering our ability and understanding of how to help other women," said Dr. Sand.

"We are cautiously optimistic about the eCoin as it has the ability to help a large number of people who don't respond to medication or behavioral therapies," said Dr. Sand. "It's wonderful and gratifying to hear patients say the treatment has changed their lives."

Dr. Peter Sand

"As a teacher, it's always been my job to help others. Participating in this study was a no-brainer for me. If it can help other women, that's great," said Williams. "Dr. Sand is so knowledgeable and passionate about what he does, and all of the people running the studies are so kind and accommodating. They were really good at explaining things, and I felt like they took the time to get to know me."

2019-20 Highlights: Special Programs

Our model programs provide unique and compassionate support for mothers and families in the communities we serve and beyond.

Evanston Perinatal Center

Scott MacGregor, DO
Co-Director

Bill MacKendrick, MD
Co-Director

Myra Sabini, BSN, RNC-OB, C-EFM
Perinatal Center Coordinator

The Evanston Perinatal Center is one of the three Level III centers in the Northwestern Perinatal Network, which is one of 10 regional perinatal centers in Illinois and is supported by federal and state grants. This regionalized perinatal system was created to match the level of maternal and neonatal acuity with appropriate personnel and resources in all regions of Illinois.

Currently, our perinatal program serves seven referral hospitals in Chicago and the north and west suburbs by promoting professional collaboration, consultation, education and communication to improve the health of pregnant women and their babies.

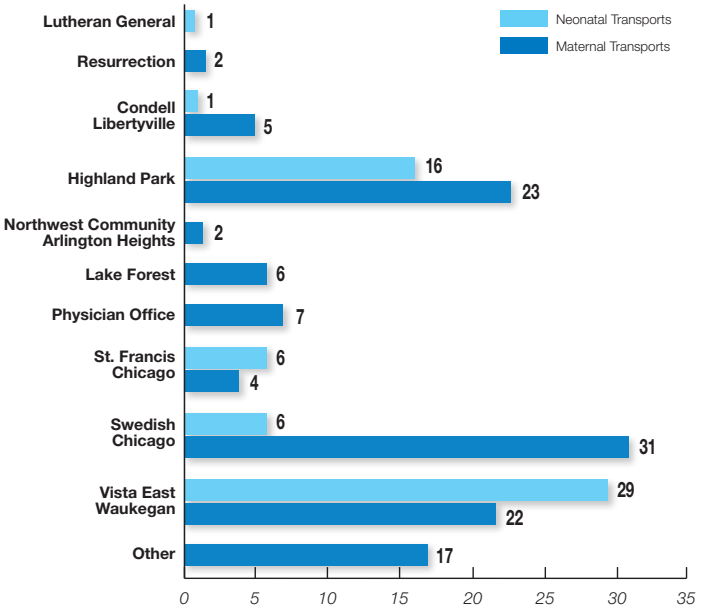
2019–2020 **Highlights**

The Evanston Perinatal Center:

- Collaborates with referring hospitals for high-risk management and acceptance of maternal and neonatal transports. In 2020, Evanston Hospital accepted 119 maternal and 53 neonatal transports. The referring hospitals support 14,217 delivered women annually, which is part of the largest percentage of delivery volume within the Illinois Perinatal Program.
- Acts as a liaison and resource to the hospital and to the community by supporting network activities to meet perinatal grant rules and guidelines thus adding value, expertise and quality to non-NorthShore practices across Northern Illinois.
- Provides 24-hour tertiary center obstetrical and neonatal consultation to increase early identification of maternal-fetal and neonatal problems and to expedite consultation/referral to our tertiary care center, as needed.
- Coordinates professional educational opportunities and courses for obstetric and neonatal physicians and nurses, which include courses in Fetal Monitoring, Neonatal Stabilization, Hemorrhage, Hypertension Management, and Training to Care for Mothers and Newborns Affected by Opioids.
- Supports the Illinois Perinatal Quality Collaborative (ILPQC) by assisting with conference planning, communication to referring hospitals and overall support from the Perinatal Center Coordinator. These initiatives are rolled out through the perinatal regionalized program.
- Monitors and collects data for the Illinois Department of Public Health (IDPH) for perinatal indicators of quality care, such as fetal, neonatal and maternal mortality rates; caesarian section rates; delivery volumes; low birth rates; and maternal and neonatal transport volumes.
- Is responsible for overseeing the network hospitals for state-required reports of metabolic newborn screens, newborn hearing screens, and HIV and adverse outcomes via the Adverse Pregnancy Outcomes Reporting System.
- Provides essential support for IDPH triennial site visits. Each hospital's resources and services are reviewed by the Perinatal Center and IDPH to maintain the level of care designation as determined by the Perinatal 640 Rule.

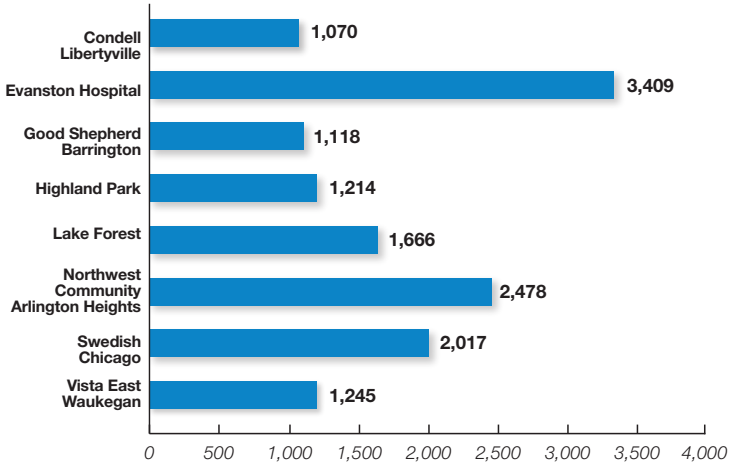
Maternal and Neonatal Transport to Evanston Hospital

Fiscal Year Oct. 1, 2019 to Sept. 30, 2020



Delivery Volume by Hospital Within the Perinatal Network

Fiscal Year Oct. 1, 2019 to Sept. 30, 2020



Perinatal Depression Program

Jo Kim, PhD
Program Director and Clinical Assistant Professor

Women are at greatly increased risk for clinical depression and its potentially devastating outcomes during the perinatal period. The Perinatal Depression Program (PDP) provides proactive universal screening for depression in both the pre- and postnatal periods. The program also provides an immediate, live telephone response to at-risk women by a trained and licensed professional 24/7/365 for information, advice or referral to an appropriate mental health provider.

2019–2020 **Highlights**

- 16,081 depression and anxiety screens were administered.
- 1,178 depression screens triggered a clinical response for indications of women at risk, and 380 (32%) of those women endorsed thoughts of self-harm.
- 1,982 new moms and their family members made calls to the MOMS Perinatal Depression Hotline.
- 47 callers were referred for emergency services based on their acuity.
- The program supported mood screening and triage at Swedish Hospital.
- An additional social worker was hired to accommodate increased screening and research initiatives.

Educational Achievements

Didactic lectures on perinatal mood disorders were presented to University of Chicago Pritzker School of Medicine medical students and NorthShore Family Medicine residents.

Opportunities for perinatal mood disorders research participation were made available to University of Chicago Pritzker School of Medicine residents.

The Perinatal Depression Program commemorated 15 years in 2018. The onsite clinical team consists of (from left) Clinical Coordinator, Suzanne Caulfield, Program Director, Dr. Jo Kim, Clinical Coordinator, Teri McKean, and Clinical Research Manager Laura La Porte.

"This is such a great resource for moms. I'm so glad I called."

— MOMS Perinatal Depression Hotline Caller

Grand Rounds presentations covered current developments in the field and upcoming research initiatives.

A panel presentation on postpartum psychosis was slated to take part in the National Association of Perinatal Social Workers Annual Conference (postponed to 2021 due to the COVID-19 pandemic).

Research Achievements

Despite the restrictions of in-person recruitment and research sessions, the program adopted electronic processes to continue enrollment and treatment in The SUMMIT Trial (summittrial.com), a Patient-Centered Outcomes Research Institute study. This timely study compares in-person psychotherapy to video psychotherapy.

Similarly, the program continued to electronically recruit and consent patients without interruption to fulfill the obligations of a Small Business Innovation Research (SBIR) Phase II award from the National Institute of Mental Health to test a smartphone-based app designed to treat perinatal depression.

Research collaboration on the Genetic Exploration of Maternal Mood (GEMM) study continued with Alan Sanders, MD, and Pablo Gejman, MD (Psychiatric Genetics). Preliminary findings of the study were presented at the Marcé Society of North America conference in October 2019, where the team received the conference's "Best Poster" award.

Community Benefit and Philanthropy

Program Director Jo Kim, PhD, served on external committees including the following:

- Illinois Maternal Mortality Review Committee for Violent Deaths (committee member)
- Postpartum Support International (Certification Exam Development Committee Subject Matter Expert)
- Innovations to Improve Maternal Outcomes–Illinois (Equal Access to Care Workgroup Member)
- Beyond the Baby Blues (Clinical Advisor)

Clinical Research Manager Laura La Porte, LCSW, led free support groups through the Evanston-based nonprofit Beyond the Baby Blues. She served women who suffered perinatal loss (miscarriage through stillbirth) and those with depression and anxiety.

The Illinois Department of Public Health (IDPH) provided additional funding to NorthShore's 24/7 Perinatal Depression Hotline (866-364-MOMS), which enables the hotline to provide immediate clinical support to women and families throughout Illinois.

Perinatal Family Support Center

The mission of the Perinatal Family Support Center (PFSC) is to protect and enhance physical and mental health for a high-risk patient population of perinatal women, children and families at NorthShore. We have staff based at Evanston and Highland Park Hospitals.

2019–2020 **Highlights**

2,739 families received services from PFSC in fiscal years 2019 and 2020.

In fiscal year 2019, PFSC reinstituted its Graduate Intern Program. Working in collaboration with accredited social work programs, the program matches second-year social work master's students with PFSC staff for more than 600 hours of supervised clinical experience.

PFSC staff collaborated with the NorthShore Pharmacy to establish the **Pharmacy Assistance Program** to help patients secure medicine or medical equipment not covered by insurance. The primary need since the program's inception has been for coverage of blood pressure cuffs and monitors for high-risk patients to use at home.

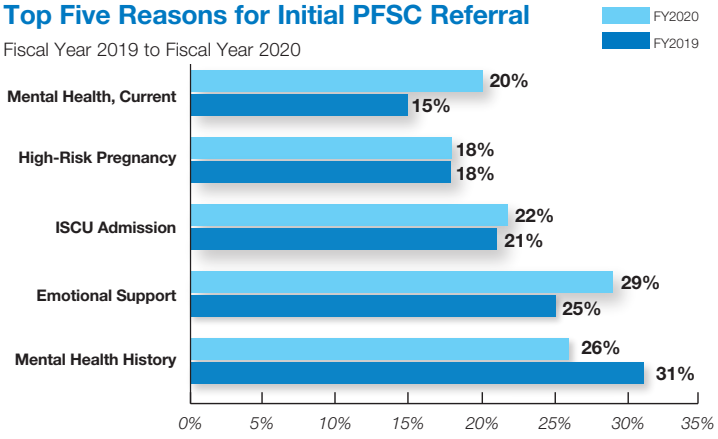
Community Benefit and Philanthropy

PFSC staff collaborate with community partners to provide valuable education and resources to the community.

- **Beyond the Baby Blues** is a nonprofit Evanston organization that offers therapeutic support groups for women suffering from perinatal mood disorders and loss: one staff facilitated support groups.
- For the 12th consecutive year, PFSC partnered with the Junior League–North Shore to sponsor **Baby Steps Baby Shower**—a baby shower for low-income expectant mothers. While the in-person event was canceled this year due to the COVID-19 pandemic, the donations and resources typically provided at this event were made available for families. Families were provided with written resources on postpartum mood issues, car seat safety and breastfeeding, and the Junior League donated baby supplies for 15 families, including strollers, car seats, bassinettes and more. The families who received these gifts have been so appreciative and left the hospital feeling well supported.

Top Five Reasons for Initial PFSC Referral

Fiscal Year 2019 to Fiscal Year 2020



Generous donations will continue to allow the PFSC team to assist families experiencing unanticipated financial hardship. PFSC has benefited from the generosity of the following donors:

- **Vizient** employees donated nearly $5,700 in memory of their colleague's baby who lived for a brief time in the ISCU. These funds have been targeted to assist families with transportation costs to and from the hospital in the form of gas gift cards.
- Through the **NorthShore Associate Board Emergency Family Fund**, PFSC staff provided needs-based support to patients and families with a $12,500 annual grant. Resources included gift cards for Target, gas gift cards, meal coupons for use in the hospital cafeteria, and Metra and Ventra cards, as well as assistance with parking costs.
- PFSC provided **30 Comfort Cubs** to patients and their families who have experienced a perinatal loss, placed a baby for adoption or had a premature infant admitted to the Infant Special Care Unit. The cubs are purchased with an annual donation from a former patient and husband who lost their daughter due to prematurity.
- The **Krinsky Memorial Fund** was established in honor of Joshua Krinsky. Joshua lived for several months in our Infant Special Care Unit and has been honored for nearly 20 years at a golf outing organized by his family. The 2020 golf outing was canceled due to the COVID-19 pandemic, so Dr. Krinsky signed appeal letters requesting that donations be made online through the NorthShore Foundation instead. This year, PFSC was thrilled and grateful to receive more than $12,000. Funds from this event provide assistance to vulnerable families and healthy snacks for ISCU visitors, as well as support PFSC staff through opportunities for professional development.
- The **PFSC Annual Holiday Fund** allows PFSC to provide gift cards to families in need, helping make the holiday season a little brighter. In December 2020, we received $9,500, nearly double the amount raised the prior year, allowing the purchase of several hundred Target gift cards.

The Colette Louise Tisdahl Foundation was established in Colette's memory following her premature birth and death nine days later. Turning their grief into empathy and action, Colette's parents established a Foundation in her name that supports families who find themselves in financial need due to pregnancy complications, premature birth or loss. Patients apply online at colettelouise.com.

In the past two years, this Foundation has provided $97,000 to help 71 families receiving care at Evanston Hospital. Examples of support include paying rent, utilities, car repairs, Lyft rides, furniture for a safe home and reimbursement for lost wages, among others.

Mark Tisdahl and Michelle Valiukenas

2019–2020 Medical Education

Medical education is a critical facet of the Department's mission. University of Chicago Pritzker School of Medicine trainees place NorthShore at the top of their educational experiences, and our faculty are regularly recognized for their dedication and teaching skills.

Undergraduate Medical Education

Michael Hughey, MD
Site Director and Senior Clinician Educator

Melissa Keene, MD
Associate Site Director and Clinician Educator

Dr. Michael Hughey

Dr. Melissa Keene

2019–2020 **Highlights**

Following 2018's successful academic year, a number of important staffing and program changes occurred in 2019.

After serving as Site Director for many years, H. Jacob Saleh, MD, transitioned from his role. His contributions were many, and he was recognized by the students as the 2018 Teacher of the Year. He will continue to interact with the students in numerous ways in the coming years.

Michael Hughey, MD, formerly Associate Site Director, was appointed the new Site Director for Undergraduate Medical Education in 2019. He continues to run the simulation training exercises for the third-year students while also assuming administrative responsibility for their training at NorthShore.

Melissa Keene, MD, has assumed the role of Associate Site Director. She joined the professional staff at NorthShore in January 2019. She previously was on staff at Northwestern Memorial Hospital, serving as the Associate Program Director for the OB/GYN residency and the Ambulatory Gynecology Clerkship Director. In addition to assisting with the training simulations, she is focused on expanding the mentoring program for the students.

Carrie Smith, MD, has replaced Sabrina Holmquist, MD, MPH, as the University of Chicago Obstetrics and Gynecology Clerkship Director. Dr. Smith has already had a significant impact on both the training program and the teaching engagement of the NorthShore faculty. Among her goals in both Hyde Park and Evanston, Dr. Smith hopes to develop a training program to support physician educators.

The COVID-19 pandemic has caused major changes in undergraduate medical education in the Department.

In the middle of March 2020, for safety reasons, all student clinical involvement was suspended by the University of Chicago. When on-site programming was resumed later in the year, there were several key changes to the curriculum:

- The duration of OB/GYN clinical training for each student was reduced from six weeks to four weeks.
- Personal protective equipment and social distancing standards for students within the hospital were enforced.
- The program leveraged technology to offer remote lectures, remote simulation labs and a modified objective structured clinical examination instead of in-person sessions. In addition, a student website was built, containing a full OB/GYN curriculum of short videos, to facilitate off-site learning.
- Developed by Dr. Keene, the Mentoring Program for students was completely overhauled and strengthened to augment student learning.

Pritzker Student Feedback for NorthShore OB-GYN Experience 2019–2020

University of Chicago Pritzker School of Medicine students continued to rate their experience with the Ob/Gyn program very positively in the 2019-2020 academic year despite the challenges of COVID-19 and remote learning. Specifically, they rated "the clinical experience at NorthShore" as very worthwhile and gave the faculty high marks for its commitment to teaching in the annual survey.

	2018-2019 Academic Year n=31 mean ± sd	2019-2020 Academic Year n=15 mean ± sd
Overall the clinical experience at NorthShore was worthwhile	4.65 ± 0.7	4.4 ± 1.0
Overall the faculty at NorthShore were committed to teaching	4.55 ± 0.9	4.27 ± 1.0

Ratings are on a five point (1 – 5) scale.

Graduate Medical Education

Sangeeta Senapati, MD, MS
Site Director and Clinical Associate Professor

Barrett Robinson, MD, MPH
Associate Site Director and Clinical Assistant Professor

All 28 of the University of Chicago Pritzker School of Medicine OB/GYN residents benefit from learning opportunities at NorthShore over their four-year training program.

Under the leadership of Adrianne Dade, MD, Obstetrics and Gynecology Residency Director at the University of Chicago Pritzker School of Medicine, Pritzker and NorthShore provide the breadth and depth of graduate medical education at both campuses.

NorthShore also hosts residents from the AMITA Health System Obstetrics and Gynecology Residency Program, which allows second-year residents to participate within our Labor and Delivery team throughout the academic year.

The University of Chicago residents' Obstetrics and Gynecology outpatient clinic training is based at the NorthShore Community Health Center. This experience gives residents the opportunity to learn outpatient management within the context of a group practice.

2019–2020 **Highlights**

Members of our OB/GYN faculty are routinely recognized for their remarkable teaching abilities. NorthShore physician Jeremy Miller, MD, was recognized by the Obstetrics and Gynecology residents for his talent and dedication to graduate medical education as the recipient of the Golden Apple Award.

The residents received several important accolades this year for their teaching of medical students. Golden Apple Awards were presented to Caroline Kuhn, MD (Class of 2020), Dana Al-Khaled, MD (Class of 2021), Pooja Vyas, MD (Class of 2022), and Alessandra Hirsch, MD (Class of 2023).

Our team at NorthShore continues to provide cutting-edge educational opportunities for the residents through the use of simulation technology in the state-of-the-art Grainger Center for Simulation and Innovation at NorthShore. The educational program provides intensive training for the residents in areas such as complex deliveries, ultrasound skills, team building, obstetric emergencies, patient counseling and management of medically complex situations. Similarly, a program was designed for high-impact gynecologic training with a focus on advanced minimally invasive surgical skills and techniques using a range of both low- and high-fidelity models in the safety of the simulated learning environment.

The residents received several important accolades this year for their teaching of medical students. Golden Apple Awards were presented to Caroline Kuhn, MD (Class of 2020), Dana Al-Khaled, MD (Class of 2021), Pooja Vyas, MD (Class of 2022), and Alessandra Hirsch, MD (Class of 2023).

Our team at NorthShore continues to provide cutting-edge educational opportunities for the residents through the use of simulation technology in the state-of-the-art Grainger Center for Simulation and Innovation at NorthShore. The educational program provides intensive training for the residents in areas such as complex deliveries, ultrasound skills, team building, obstetric emergencies, patient counseling and management of medically complex situations. Similarly, a program was designed for high-impact gynecologic training with a focus on advanced minimally invasive surgical skills and techniques using a range of both low- and high-fidelity models in the safety of the simulated learning environment.

The resident research projects are representative of the extensive scope of research at both NorthShore and the University of Chicago and the combined faculty commitment to mentor learners in their academic endeavors. Our residents published and presented their research projects at numerous national meetings—even as most were in a virtual format this year.

Gabriel Arenas, MD, published two papers this past year with one project focused on the use of ultrasound shear wave velocity and its variance by anatomical region in bovine ovaries. Dr. Arenas also participated in research detailing the characteristics of decellularized muscle scaffolding in dermal matrices of skeletal muscle regeneration in rats.

Angela Leffelman, MD, published a study examining postoperative narcotic use for ambulatory gynecologic surgery patients. Dr. Leffelman also presented research on vaginal hysterectomy simulation for resident surgical education at the American Urogynecologic Society (AUGS) annual meeting.

Sahana Somasegar, MD, completed a project looking at incorporating Accreditation Council for Graduate Medical Education (ACGME) competencies to improve value-based care education in a fellowship. Dr. Somasegar also participated in research looking at morphological and molecular studies of low-grade, low-stage endometrioid endometrial adenocarcinoma, which was presented at the United States and Canadian Academy of Pathology. Drs. Somasegar and Leffelman also presented a project at the AUGS/International Urogynecological Association joint scientific meeting demonstrating a robotic-assisted laparoscopic vesicovaginal fistula repair.

Jocelyn Wascher, MD, published a paper examining restrictions on reproductive care at Catholic hospitals, qualitatively assessing patient experiences and perspectives.

Kylie Steenbergh, MD, published work earlier this year dealing with promoting empathic curiosities among surgeons.

Alyssa Kahan, MD, presented at the AAGL annual meeting on the impact of a trauma center and surgical priority classification system on gynecologic emergency surgery quality measures.

Pooja Vyas, MD, presented at the AAGL annual meeting on the impact of overnight formal ultrasound on the diagnosis of ectopic pregnancy among symptomatic pregnancies of unknown location.

Fellowship Programs

Division of Female Pelvic Medicine and Reconstructive Surgery Fellowship

Roger Goldberg, MD, MPH
Program Director and Clinical Assistant Professor
Female Pelvic Medicine and Reconstructive Surgery

Sonia Dutta, MD
Associate Program Director
Female Pelvic Medicine and Reconstructive Surgery

The Division of Female Pelvic Medicine and Reconstructive Surgery (FPMRS) supports advanced training for three fellowship positions certified by the Accreditation Council for Graduate Medical Education (ACGME). Fellows develop clinical expertise in the medical and surgical treatment of urinary incontinence, pelvic organ prolapse and pelvic health conditions. Training is integrated with rotations with the FPMRS faculty at the University of Chicago, as well as with NorthShore faculty in urology and colorectal surgery.

2019–2020 **Highlights**

Our 2019 graduate, **Svjetlana Lozo, MD, MPH**, joined the FPMRS Division at Columbia University in New York City.

Ghazaleh Rostami, MD, our 2020 graduate, joined the NorthShore FPMRS Division as an attending physician in August 2020.

Joseph Pincus, MD, our third-year fellow, is currently working on his project of understanding how the microbiome of the bladder, vagina and gut may affect development of recurrent urinary tract infections in postmenopausal women. Additionally, he is working with the Pharmacy Department in an effort to curb overuse and overprescription of antibiotics for urinary tract infections.

Nani Phillips, MD, our second-year fellow, joined us after completing her OB/GYN residency at the Albany Medical College. Her research interests are in better understanding third-line interventions for refractory overactive bladder and painful bladder syndrome/interstitial cystitis. She will be looking at whether or not naltrexone may be an effective treatment option for women with bladder pain symptoms.

Joel Winer, MD, joined us in July 2020 after completing his residency at Yale University in New Haven, Connecticut.

Henry Chill, MD, will be joining us in July 2021. He is currently finishing up his residency at Hebrew University, Hadassah Medical Center in Jerusalem, Israel.

Division of Gynecologic Oncology Fellowship

Elena Moore, MD
Associate Program Director and Clinical Assistant Professor
Gynecologic Oncology

The Division of Gynecologic Oncology is an approved, integrated fellowship training program with the University of Chicago. The fellowship program was accredited by the Accreditation Council for Graduate Medical Education (ACGME). The program consists of one basic science research year and two clinical years divided between NorthShore and University of Chicago campuses. The clinical experience includes management of preinvasive and complex invasive cancers of the gynecological tract under the supervision of 10 attending physicians, with both surgical and medical oncology as central components of the curriculum.

2019–2020 **Highlights**

In February 2020, the gynecologic oncology fellowship program in conjunction with the University of Chicago underwent a successful ACGME site visit, re-credentialing the fellowship program for another five years.

Claire Hoppenot, MD, graduated from our gynecologic oncology fellowship in June 2019. She also completed a fellowship in Medical Ethics through the MacLean Center for Clinical Medical Ethics at the University of Chicago during her time here. She successfully published four first-author publications in peer-reviewed journals during her fellowship. She joined the faculty at Baylor College of Medicine where she is looking forward to a career in academic medicine with an emphasis on medical ethics.

Isabel Lazo, MD, graduated from our fellowship in June 2020. She joined Stanford Health Care as a Clinical Assistant Professor in the Division of Gynecologic Oncology.

Raanan Alter, MD, is currently completing his third year of fellowship. He had a successful research experience in 2019 with Akash Patnaik, MD, PhD, MMSc, at the University of Chicago studying the T-cell tumor microenvironment in endometrial cancers and how this changes in response to immune therapies.

Melissa Javellana, MD, is our second-year fellow having matched to our fellowship program after completing her residency at the University of Chicago. She is completing her research year in the laboratory of Ernst Lengyel, MD, PhD, at the University of Chicago.

Sarah Akroyd, MD, is our first-year fellow having matched to our fellowship program for 2020 from Temple University in Philadelphia, Pennsylvania. She completed medical school at University of Rochester School of Medicine and Dentistry.

Rahul Krishnan, MD, is our newest recruit having matched to our fellowship program for 2021 from the University of Virginia.

Fellowship Programs

NorthShore and University of Chicago Maternal-Fetal Medicine Fellowship

David Ouyang, MD
Program Director and Clinical Associate Professor
Maternal-Fetal Medicine

NorthShore and the University of Chicago have now been training Maternal-Fetal Medicine fellows jointly for more than 10 years. Our integrated fellowship program has matured and grown over this past decade, but the enthusiasm and core principles remain rooted in developing outstanding and compassionate physicians with the potential to be leaders in clinical and academic maternal-fetal medicine. To accomplish this mission, we provide a rich environment of scholarship and discovery that optimizes attainment of personal goals and inspires fellows to be committed to lifelong learning, scientific inquiry and professional growth.

2019–2020 **Highlights**

Lena Braginsky, MD, was awarded the Best Oral Presentation for her session at the Society for Maternal-Fetal Medicine (SMFM) for her fellowship thesis project titled "A randomized, controlled trial of tissue adhesive compared to sterile strips for cesarean delivery" (Mentor: Beth Plunkett, MD, MPH) that enrolled nearly 600 women at both NorthShore and University of Chicago. Lena also presented two posters at SMFM as well as another study at the Society for Reproductive Investigation (SRI).

Dr. Braginsky successfully defended her thesis in 2019 and joined a blended academic/private practice position outside of San Francisco with the Kaiser Permanente group.

Javier Rodriguez Kovacs, MD, completed his fellowship in 2020 and has joined the Avera Medical Group MFM practice at the University of South Dakota.

Both of our third-year fellows—**Caitlin MacGregor, MD**, and **Samantha de los Reyes, MD**—were awarded $5,000 grants from the University of Chicago's Institute for Translational Medicine for their thesis projects: Dr. MacGregor's Magnetic Resonance Study (MARS): A Novel Assessment of Placental Function and Dr. de los Reyes' Single Untreated Glucose and Risk (SUGAR) Trial. Both are mentored by Dr. Plunkett.

Sunitha Suresh, MD, is our second-year fellow who joined us following completion of her residency at Johns Hopkins Medical School.

Nikolina Docheva, MD, is our first-year fellow who joined us following completion of her residency at the University of Toledo College of Medicine.

In 2020, we successfully increased the complement of our fellowship to four fellows and in turn recruited two fellows for the upcoming year. **Courtney Bisson, MD**, is completing her residency at the University of Oklahoma and **Jessica Morgan, MD**, is completing her residency at University of Illinois Chicago.

Division of Gynecological Pain and Minimally Invasive Surgery Fellowship

Sangeeta Senapati, MD, MS
Program Director

Frank Tu, MD, MPH
Associate Program Director

Shari Snow, MD
Associate Program Director
University of Chicago

The goal of the fellowship in minimally invasive gynecologic surgery is to train fellows who excel as clinicians and surgical teachers, possess a strong basic understanding of how to apply practical research results in gynecology, and acquire the tools to contribute academically to their unique area of interest. Fellows will graduate the program with a comprehensive toolbox of how to evaluate and treat complex gynecological conditions of the uterus and adnexa (leiomyoma, adenomyosis, ovarian masses) while receiving exposure to the diagnosis and treatment of endometriosis, myofascial pelvic pain, bladder pain syndrome and vulvar pain disorders. Training is integrated with faculty at the University of Chicago, as well as with NorthShore faculty in urogynecology, gynecologic oncology and colorectal surgery.

2019–2020 **Highlights**

Richard Cockrum, MD, our second-year fellow, joined us after completing his OB/GYN residency at the University of Chicago. Dr. Cockrum has already had a very successful fellowship—his presentations are listed below. Dr. Cockrum is joining the Division as an attending physician in August 2021.

Eva Reina, MD, is joining the fellowship having successfully matched with the program for 2021. Dr. Reina is currently completing her residency at Brown University Women's College and Women & Infants Hospital of Rhode Island.

Cockrum R, Tu F, Garrison E, Dillane K, Roth G, Hellman K. "A Novel Method for Characterizing Spontaneous Menstrual Cramps with Uterine Artery Doppler Velocimetry." Oral presentation at 23rd Annual Scientific Meeting on Pelvic Pain, International Pelvic Pain Society (IPPS) Virtual Conference. October 2020.

Kahan A, **Cockrum R**, Douglass L, Snow S. "Impact of a Trauma Center and Surgical Priority Classification System on Gynecologic Emergency Surgery Quality Measures." Oral presentation at 49th Annual Global Congress of American Association of Gynecologic Laparoscopists (AAGL) Virtual Conference. November 2020.

Vyas P, Cockrum R, Douglass L, Snow S. "Impact of Overnight Formal Ultrasound on the Diagnosis of Ectopic Pregnancy Among Symptomatic Pregnancies of Unknown Location." Poster presentation at 49th Annual Global Congress of American Association of Gynecologic Laparoscopists (AAGL) Virtual Conference. November 2020.

Cockrum R, Tu F, Senapati S. "Partial Resectoscopic Endometrial Ablation as an Alternative to Global Ablation: A Case Series and Video Demonstration." Video poster presentation at 49th Annual Global Congress of American Association of Gynecologic Laparoscopists (AAGL) Virtual Conference. November 2020.

2019–2020 Scholarship

Through invited talks and publication in peer-reviewed journals, our Department is contributing to the dissemination of knowledge and impacting how care is delivered.

2018–2020 **Publications**

Note: Citations published in 2018 but not included in the 2018 Annual Report are also listed.

Agrawal, V, Jaiswal, MK, Beaman, KD, **Hirsch, E**. (2018) Surfactant Protein (SP)-A Suppresses Preterm Delivery Induced by Live E. coli in Mice. *Biology of Reproduction* 99:546-555 doi: 10.1093/biolre/ioy074. PMID: 29590302

Bliwise DL, Wagg A, **Sand PK**. (2019) Nocturia: A Highly Prevalent Disorder With Multifaceted Consequences. *Urology.* 133S:3-13. doi: 10.1016/j.urology.2019.07.005. PMID: 31310770

Borders, AEB, Birsner, M, Gyamfi-Bannerman, C. (2019) Avoidance of nonmedically indicated early-term deliveries and associated neonatal morbidities. ACOG Committee Opinion No. 765. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology* 2019;133:e156–63.

Braginsky, L, **Javellana, M, Cleaveland, E, Elue, R**, Wang, C, Boyle, D, **Plunkett, BA**. (2019) A randomized, controlled trial of tissue adhesive compared to sterile strips after cesarean delivery. *Obstetrics & Gynecology* 134(2):295-301. PMID: 31306319.

Braginsky, L, Javellana, M, Cleveland, E, Elue, R, Wang, C, Boyle, D, **Plunkett, BA**. (2019) Tissue adhesive compared with sterile strips after cesarean delivery: A randomized controlled trial. *Obstetrics & Gynecology* Aug;134(2):295-301.

Bryant, A, **Borders, A**. (2019) Approaches to limit intervention during labor and birth. ACOG Committee Opinion No. 766. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology* 2019;133:e164–73.

Caplan, M, **Keenan-Devlin, L**, Freedman, A, Grobman, W, Wadhwa, PD, Buss, C, Entringer, S, Miller, G, **Borders, AE**. (2020). Lifetime Psychosocial Stress Exposure Associated with Hypertensive Disorders of Pregnancy. *American Journal of Perinatology*.

Chen, CCG, Cox, JT, Yuan, C, Thomaier, L, **Dutta, S**. (2019) Knowledge of pelvic floor disorders in women seeking primary care: A cross-sectional study. *BMC Family Practice* May 23;20(1):70.

Daar, J, Benward, J, Collins, L, Davis, J, Davis, O, Francis, L, Gates, E, Ginsburg, E, Gitlin, S, Hurd, W, **Klipstein, S**, McCullough, L, Reindollar, R, Ryan, G, Sauer, M, Tipton, S, Westphal, L, Zweifel, J. (2019) Fertility treatment when the prognosis is very poor or futile: An Ethics Committee opinion. *Fertility and Sterility* Apr;111(4)659-663.

Daar, J, Benward, J, Collins, L, Davis, J, Davis, O, Francis, L, Gates, E, Ginsburg, E, Gitlin, S, **Klipstein, S**, McCullough, L, Paulson, R, Reindollar, R, Ryan, G, Sauer, M, Tipton, S, Wesphal, L, Zweifel, J. (2018) Consideration of the gestational carrier: An Ethics Committee opinion. *Fertility and Sterility* Nov;110(6):1017-1021.

Daar, J, Benward, J, Collins, L, Davis, J, Davis, O, Francis, L, Gates, E, Ginsburg, E, Gitlin, S, **Klipstein, S**, McCullough, L, Paulson, R, Reindollar, R, Ryan, G, Sauer, M, Tipton, S, Wesphal, L, Zweifel, J. (2018) Misconduct in third-party assisted reproduction: An Ethics Committee opinion. *Fertility and Sterility* Nov;110(6):1012-1016.

Daar, J, Benward, J, Collins, L, Davis, J, Davis, O, Francis, L, Gates, E, Ginsburg, E, Gitlin, S, **Klipstein, S**, McCullough, L, Paulson, R, Reindollar, R, Ryan, G, Sauer, M, Tipton, S, Wesphal, L, Zweifel, J. (2018) Planned oocyte cryopreservation for women seeking to preserve future reproductive potential: An Ethics Committee opinion. *Fertility and Sterility* Nov;110(6):1022-1028.

Daar, J, Collins, L, Davis, J, Francis, L, Gates, E, Ginsburg, E, Gitlin, S, **Klipstein, S**, McCullough, L, Paulson, R, Reindollar, R, Ryan, G, Sauer, M, Tipton, S, Westphal, L, Zweifel, J. (2019) Interests, obligations and rights in gamete and embryo donation: An Ethics Committee opinion. *Fertility and Sterility* Apr;111(4)665-670.

Dambaeva, S, Schneiderman, S, Jaiswal, MK, Agrawal, V, Katara, G, Gilman-Sachs, A, **Hirsch, E**, Beaman, KD. (2018) Interleukin 22 Prevents Lipopolysaccharide-Induced Preterm Labor in Mice. *Biology of Reproduction* 98:299-308. doi: 10.1093/biolre/iox182. PMID: 29315356

de los Reyes, S, Tran, E. (2019) Strip of the month: Premature preterm rupture of membranes and fetal decelerations. *NeoReviews* Apr;20(4):e233-e241.

Diaz S, Hite A, **Plunkett BA**, Elue R, Victorson D. (2020) An exploration of the diagnosis and treatment of obesity among integrative medicine health care providers. *European Journal of Integrative Medicine* 35:101108. doi.org/10.1016/j.eujim.2020.101108

El-Sayed, Y, **Borders, AEB**. (2019) Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period. ACOG Committee Opinion No. 767. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology* 2019;133:e174–80.

Freedman, AA, Goldstein, JA, Miller, GE, **Borders, A, Keenan-Devlin, L**, Ernst, LM. (2019) Seasonal Variation of Chronic Villitis of Unknown Etiology. *Pediatric and Developmental Pathology*: 1093526619892353.

Garvin, SE, Chatzicharalampous, C, **Puscheck, E**. (2019) Reflections on preimplantation genetic testing for aneuploidy and mosaicism: How did we get here, and what does it mean clinically? *Fertility and Sterility* Jan;111(1):45-47.

Gomelsky, A, Athanasiou, S, Choo, MS, Cosson, M, Dmochowski, RR, Gomes, CM, Monga, A, Nager, CW, Ng, R, Rovner, ES, **Sand, P**, Tomoe, H. (2019) Surgery for urinary incontinence in women: Report from the 6th International Consultation on Incontinence. *Neurourology and Urodynamics* Feb;38(2):825-837.

Gyllenhammer, LE, Entringer, S, Buss, C, Simhan, HN, Grobman, WA, Adam, EK, **Keenan-Devlin L, Borders, AE**, Wadhwa, PD. (2020) Prospective association of maternal immune proinflammatory responsivity and regulation in pregnancy with length of gestation. *American Journal of Reproductive Immunology*, e13366.

Hammer, KC, Kahan, AN, Fogg, LF, Walker, MA, **Hirshfeld-Cytron, JE**. (2018) Knowledge about age-related decline in fertility and oocyte cryopreservation: A national survey. *Journal of Human Reproductive Sciences* Oct-Dec;11(4):359-364.

Hellman, KM, Roth GE, Dillane KE, Garrison EF, Oladosu FA, Clauw DJ, **Tu FF**. (2020) Dysmenorrhea subtypes exhibit differential quantitative sensory assessment profiles. *Pain*. 161(6):1227-1236. doi: 10.1097/j.pain.0000000000001826. PMID: 32168005

continued

Hirsch, E. (2019) Electronic Fetal Monitoring to Prevent Fetal Brain Injury: A Ubiquitous yet Flawed Tool. *JAMA: The Journal of the American Medical Association* doi:10.1001/jama.2019.8918. https://jamanetwork.com/journals/jama/fullarticle/2738919. PMID: 31318396

Hirsch, E. (2020) Horses and Zebras: Probabilities, Uncertainty and Cognitive Bias in Clinical Diagnosis. *American Journal of Obstetrics and Gynecology* doi: 10.1016/j.ajog.2020.01.010. PMID: 31954699

Hirshfeld-Cytron, J. (2019) Optimizing implantation: Are we just scratching the surface? *Fertility and Sterility* Apr;111(4):677-678.

Hite, A, **Elue, R**, Victorson, D, **Plunkett, B**. (2019) An exploration of barriers facing physicians in diagnosing and treating obesity. *American Journal of Health Promotion* 33(2): 217-224. PMID: 29986601

Hoppenot, C, Eckert, MA, Tienda, SM, Lengyel, E. (2018) Who are the long-term survivors of high-grade serous ovarian cancer? *Gynecologic Oncology* Jan;148(1):204-212.

Hoppenot, C, Peters, P, Cowan, M, **Moore, ED**, Hurteau, J, Lee, NK, Yamada, SD. (2019) Malignant bowel obstruction due to uterine or ovarian cancer: Are there differences in outcome? *Gynecologic Oncology* Jul;154(1):177-182.

Iyer, S, **Laus, K, Rugino, A**, Botros, C, **Lozo, S**, Botros, SM, **Goldberg, R**, Tomezsko, J, **Gafni-Kane, A**, Wroblewski, K, **Sand, P**. (2019) Subjective and objective responses to PTNS and predictors for success: A retrospective cohort study of percutaneous tibial nerve stimulation for overactive bladder. *International Urogynecology Journal* Aug;30(8):1253-1259.

Iyer, S, **Lozo, S**, Botros, C, Wang, C, Warren, A, **Sand, P**, Tomezsko, J, Botros, S, **Gafni-Kane, A, Sasso, K, Goldberg, RP**. (2020) Cognitive changes in women starting anticholinergic medications for overactive bladder: A prospective study. *International Urogynecoloy Journal* Dec;31(12):2653-2660. doi: 10.1007/s00192-019-04140-3. PMID: 31813036

Iyer, S, Seitz, M, Tran, A, Scalabrin Reis, R, Botros, C, **Lozo, S**, Botros, S, **Sand, P**, Tomezsko, J, Wang, C, **Gafni-Kane, A**. (2019) Anterior colporrhaphy with and without dermal allograft: A randomized control trial with long-term follow-up. *Female Pelvic Medicine & Reconstructive Surgery* May/June;25(3):206-212.

Iyer, S, Seitz, M, Tran, A, Scalabrin, Reis, R, Botros, C, **Lozo, S**, Botros, S, **Sand, P**, Tomezsko, J, Wang, C, **Gafni-Kane, A**. (2019) Clinical Trial. Anterior Colporrhaphy With and Without Dermal Allograft: A Randomized Control Trial With Long-Term Follow-Up. *Female Pelvic Medicine & Reconstructive Surgery* May/Jun;25(3):206-212. doi: 10.1097/SPV.0000000000000524. PMID: 29300253

Javellana, M, Hoppenot, C, Lengyel, E. (2019) The road to long-term survival: Surgical approach and longitudinal treatments of long-term survivors of advanced-stage serous ovarian cancer. *Gynecologic Oncology* Feb;152(2):228-234.

Jeyendran, RS, Caroppo, E, Rouen, A, Anderson, A, **Puscheck, E**. (2019) Selecting the most competent sperm for assisted reproductive technologies. *Fertility and Sterility* May;111(5):851-863.

Kantarovich, D, Vollbrecht, HB, Cruz, SA, Castillo, H, Lee, CS, Kushner, J, Leng, JX, Morgan, VK, **Hellman, KM**. (2020) Wikipedia: A Medical Student Educational Project to Edit Wikipedia in Preparation for Practicing Evidence-Based Pain Medicine. *Journal of Medical Education and Curricular Development* doi: 10.1177/2382120520959691.

Keenan-Devlin, LS, Awosemusi, YF, Grobman, W, Simhan, A, Adam, E, Culhane, J, Miller, G, **Borders, AEB**. (2019) Early term delivery and breastfeeding outcomes. *Journal of Maternal and Child Health* Oct;23(10):1339-1347.

Khilnani, NM, Meissner, MH, Learman, LA, Gibson, KD, Daniels, JP, Winokur, RS, Marvel, RP, Machan, L, Venbrux, AC, **Tu, FF**, Pabon-Ramos, WM, Nedza, SM, White, SB, Rosenblatt, M. (2019) Research priorities in pelvic venous disorders in women: Recommendations from a multidisciplinary research consensus panel. *Journal of Vascular and Interventional Radiology* Jun;30(6):781-789.

Kim, JS, Liang, MI, Prendergast, EN, Alldredge, J, Datta, A, Hurteau, JA, **Kirschner, CV, Rodriguez, G, Vogel, JT**, Brooks, RA, Cass, J, Cohen, JG, Penner, KR, Wang, CE, **Diaz Moore, E**. (2019) Clinical outcomes in ovarian cancer patients receiving three vs. more cycles of chemotherapy after neoadjuvant treatment and interval cytoreductive surgery. *International Journal of Gynecological Cancer* Sep;29(7):1156-1163.

Kim, JS, **Turbov, J**, **Rosales, R**, Thaete, LG, **Rodriguez, GC**. (2019) Combination simvastatin and metformin synergistically inhibits endometrial cancer cell growth. *Gynecologic Oncology* Aug;154(2):432-440.

Klipstein, S, Ryan, G. (2019) ACOG Committee Opinion No. 763: Ethical considerations for the care of patients with obesity. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology* Jan;133(1):e90-e96.

Kobashi, K, Nitti, V, Margolis, E, **Sand, P**, Siegel, S, Khandwala, S, Newman, D, MacDiarmid, SA, Kan, F, Michaud, E. (2019) A prospective study to evaluate efficacy using the NURO percutaneous tibial neuromodulation system in drug-naïve patients with overactive bladder syndrome. *Urology* Sep;131:77-82.

La Porte, LM, Kim, JJ, Adams, MG, Zagorsky, BM, Gibbons, R, **Silver, RK**. (2019) Feasibility of perinatal mood screening and text messaging on patients' personal smartphones. *Archives of Women's Mental Health* June 15.

Lee King, PA, Young, D, **Borders, AEB**. (2019) A framework to harness the power of quality collaboratives to improve perinatal outcomes. *Clinical Obstetrics and Gynecology* Sep;62(3):606-620.

Leszko, M, **Keenan-Devlin, L**, Adam, EK, Buss, C, Grobman, W, Simhan, H, Wadhwa, P, Mroczek, DK, **Borders, A**. (2020) Are personality traits associated with smoking and alcohol use prior to and during pregnancy? *PLOS ONE* 2020;15(5):e0232668. doi: 10.1371/journal.pone.0232668. eCollection 2020. PubMed PMID: 32421742; PubMed Central PMCID: PMC7233577.

Levine, D, Patel, MD, Suh-Burgmann, EJ, Andreotti, RF, Benacerraf, BR, Benson, CB, Brewster, WR, Coleman, BG, Doubilet, PM, Goldstein, SR, Hamper, UM, Hecht, JL, Horrow, MM, Hur, HC, Marnach, ML, Pavlik, E, Platt, LD, **Puscheck, E**, Smith-Bindman, R, Brown, DL. (2019) Simple adnexal cysts: SRU consensus conference update and follow-up and reporting. *Radiology* Nov;293(2):359-371.

Li, Q, Louden, E, Zhou, J, Drewlo, S, Dai, J, **Puscheck, EE**, Chen, K, Rappolee, DA. (2019) Stress forces first lineage differentiation of mouse embryonic stem cells: Validation of a high throughput screen for toxicant stress. *Stem Cells and Development* Jan 15;28(2):101-113.

Lozo, S, Botros, C, Iyer, S, **Gafni-Kane, A, Sand, P**. (2020) Can patients independently identify their urinary incontinence symptoms? *International Urogynecology Journal* Jul 16. doi: 10.1007/s00192-020-04404-3. [Online ahead of print] PMID: 32676693

Lozo, S, Sand, PK. (2019) The placebo effect in overactive bladder syndrome. In: Cox, L, Rovner, E (eds.) *Contemporary Pharmacotherapy of Overactive Bladder*. Springer, Cham.

MacDiarmid, S, Staskin, DR, Lucente, V, Kaaki, B, English, S, Gilling, P, Meffan, P, Clark, M, **Sand, PK**, Sen, SK, Rovner, E. (2019) Feasibility of a fully implanted, nickel sized and shaped tibial nerve stimulator for the treatment of overactive bladder syndrome with urgency urinary incontinence. *Journal of Urology* May;201(5):967-972.

MacGregor, C, **Freedman, A**, **Keenan-Devlin, L**, Grobman, W, Wadhwa, P, Simhan, HN, Buss C, **Borders, A**. (2020) Maternal perceived discrimination and association with gestational diabetes. *American Journal of Obstetrics & Gynecology*, 100222.

MacGregor, CA, **Neerhof, M**, Sperling MJ, Alspach D, **Plunkett BA**, Choi A, Blumenthal R. (2021) Post-Cesarean Opioid Use after Implementation of Enhanced Recovery after Surgery Protocol. *American Journal of Perinatology*. Jun;38(7):637-642. doi: 10.1055/s-0040-1721075. PMID: 33264809

Marcu, I, Camplan, EC, **Tu, FF**. (2018) Interstitial cystitis/bladder pain syndrome. *Seminars in Reproductive Medicine* Mar;36(2):123-135.

Masse NM, Kuchta K, **Plunkett BA**, **Ouyang DW**. (2020) Complications associated with second trimester inductions of labor requiring greater than five doses of misoprostol. *Contraception*. 101(1):53-55. doi: 10.1016/j.contraception.2019.09.004. PMID: 31655074

McCue, B, **Borders, AEB**, Choby, B. (2018) Group prenatal care. ACOG Committee Opinion No. 731. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology* 2018;131:e104–8.

Meram, MK, Pederson, TS, **Ouyang, DW**. (2019) Strip of the month: Recurrent late decelerations in a patient with HELLP Syndrome. *NeoReviews* Jan;20(1):e48-e55.

Mesner, O, Davis, A, Casman, E, Simhan, H, Shalizi, C, **Keenan-Devlin, L, Borders, A**, Krishnamurti, T. (2019) Using graph learning to understand adverse pregnancy outcomes and stress pathways. *PLOS ONE* Sep 30;14(9):e0223319.

Mishra, P, **Hirsch, E**. (2020) Variable responsiveness to agonists for TLR2 and TLR7 in myometrial cells from different sources: Correlation with receptor expression. *Reproductive Sciences* 27:996-1001. doi: 10.1007/s43032-019-00064-x. PMID: 32124394

Nathan JH, **Goldberg RP**, Chill HH, Scherr D, Shveiky D. (2020) Novel Incision-free Device for Transvaginal Apical Pelvic Organ Prolapse Repair. *Journal of Minimally Invasive Gynecology*. 27(4):959-965. doi: 10.1016/j.jmig.2019.07.005. PMID: 31301468

Nguyen, N, MacGregor, S. (2019) Strip of the month: Preterm premature rupture of membranes with recurrent variable decelerations. *NeoReviews* Oct;20(10):e600-e607.

Oladosu, FA, **Hellman, KM**, Ham, PJ, Kochlefl, LE, Datta, A, **Garrison, EF**, Steiner, ND, **Roth, GE, Tu, FF**. (2019) Persistent autonomic dysfunction and bladder sensitivity in primary dysmenorrhea. *Scientific Reports* Feb 18;9(1):2194 doi: 10.1038/s41598-019-38545-3.

Oladosu, FA, **Tu, FF**, Farhan, S, **Garrison, EF**, Steiner, ND, **Roth, GE, Hellman, KM**. (2018) Abdominal skeletal muscle activity precedes spontaneous menstrual cramping pain in primary dysmenorrhea. *American Journal of Obstetrics and Gynecology* doi: 10.1016/j.ajog.2018.04.050.

Oladosu, FA, **Tu, FF**, Garfield, LB, **Garrison, EF**, Steiner, ND, **Roth, GE, Hellman, KM**. (2020) Low Serum Oxytocin Concentrations Are Associated with Painful Menstruation. *Reproductive Sciences* doi: 10.1007/s43032-019-00071-y.

Oladosu, FA, **Tu, FF, Garrison, EF, Dillane, KE, Roth, GE**, **Hellman, KM**. Low Serum Naproxen Concentrations Are Associated with Minimal Pain Relief: A Preliminary Study in Women with Dysmenorrhea. *Pain Medicine* doi: 10.1093/pm/pnaa133.

Padula AM, Monk C, Brennan PA, **Borders A**, Barrett ES, McEvoy CT, Foss S, Desai P, Alshawabkeh A, Wurth R, Salafia C, Fichorova R, Varshavsky J, Kress A, Woodruff TJ, Morello-Frosch R; program collaborators for Environmental influences on Child Health Outcomes. (2020) A review of maternal prenatal exposures to environmental chemicals and psychosocial stressors-implications for research on perinatal outcomes in the ECHO program. *Journal of Perinatology*. 40(1):10-24. doi: 10.1038/s41372-019-0510-y. PMID: 31616048

Patel, PV, **Alter, R**, Frenn, R, Waters, P. (2019) Aortic dissection in a pregnant patient without other risk factors. *Case Reports in Obstetrics and Gynecology* June 20;2019.

Pincus, JB, Laudano, M, Leegant, A, Downing, K. (2019) Female urethral diverticula: Diagnosis, pathology and surgical outcomes at an academic, urban medical center. *Urology* Jun;128:42-46.

Pincus, J, Rostaminia, G, Chang, C, **Gafni-Kane, A, Goldberg, RP**. (2019) Factors associated with overactive bladder symptom improvement after one year of monthly percutaneous tibial nerve stimulation therapy. *Neurourology and Urodynamics* Aug;38(6):1676-84.

Plunkett, BA, Sandoval, G, Balit, JL, Reddy, UM, Wapner, RJ, Varner, MW, Thorp, JM, Jr, Caritis, SN, Prasad, M, Tita, ATN, Saade, GR, Sorokin, Y, Rouse, DJ, Biackwell, SC, Tolosa, JE, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units (MFMU) Network. (2019) Association of labor with neonatal respiratory outcomes at 36–40 weeks of gestation. *Obstetrics and Gynecology* Sep;134(3):495-501 PMID: 31403604.

Puscheck, E. (2019) A 33-year-old woman with infertility (bilateral hydrosalpinx). In Chelmow, D, Karjane, N, Ricciotti, H, Young, A (Eds). *Office Gynecology: A Case-Based Approach* (pp. 164-166). Cambridge: Cambridge University Press.

Puscheck, E, et al. (2019) AIUM practice parameter for the performance of a focused ultrasound examination in reproductive endocrinology and female infertility. *Journal of Ultrasound in Medicine* Mar;38(3):E1-E3.

Qian, F, Rookus, MA, Leslie, G, Risch, HA, **Rodriguez, GC**, et al. (2019) Mendelian randomization study of height and body mass index as modifiers of ovarian cancer risk in 22,588 BRCA1 and BRCA2 mutation carriers. *British Journal of Cancer* Jul;121(2):180-192.

Qian, F, Wang, S, Mitchells, J, McGuffog, L, Barrowdale, D, Leslie, G, **Rodriguez, GC**, et al. (2019) Height and body mass index as modifiers of breast cancer risk in BRCA1/2 mutation carriers: A mendelian randomization study. *Journal of the National Cancer Institute* Apr 1;111(4):350-364.

Rinehart, J. (2019) The use of predictive analytics to construct a model intended to assist patients undergoing in vitro fertilization to decide upon the number of embryos to transfer that will limit the chance of a twins gestation. Master's Thesis: Master of Predictive Analytics; School of Professional Studies, Northwestern University, Evanston, IL.

Rodriguez, GC, Kauderer, J, Hunn, J, Thaete, LG, Watkin, WG, Russell, S, Yozwiak, M, Basil, J, Hurteau, J, Lele, S, Modesitt, SC, Zivanovic, O, Zhang, HH, Bartels, PH, Alberts, DS. (2019) Phase II trial of chemopreventive effects of levonorgestrel on ovarian and fallopian tube epithelium in women at high risk for ovarian cancer: An NRG Oncology Group/GOG Study. *Cancer Prevention Research (Phila)* Jun;12(6):401-412.

Rostaminia, G, Abramowitch S, Chang C, **Goldberg RP**. (2020) Descent and hypermobility of the rectum in women with obstructed defecation symptoms. *International Urogynecology Journal*. Feb;31(2):337-349. doi: 10.1007/s00192-019-03934-9. PMID: 31016336

continued

Rostaminia, G, Chang, C, **Pincus, JB, Sand, PK, Goldberg, RP**. (2019) Predictors of successful percutaneous tibial nerve stimulation (PTNS) in the treatment of overactive bladder syndrome. *International Urogynecology Journal* Oct;30(10):1735-1745.

Rostaminia, G, Routzong M, Chang C, **Goldberg RP**, Abramowitch S. (2020) Motion of the vaginal apex during strain and defecation. *International Urogynecology Journal*. 31(2):391-400. doi: 10.1007/s00192-019-03981-2. PMID: 31161247

Scholz, RC, Smith, BA, Adams, MG, Shah, M, Brudner, C, Datta, A, **Hirsch, E**. (2019) A multi-faceted surgical site infection prevention bundle for cesarean delivery. *American Journal of Perinatology* Dec 30. doi: 10.1055/s-0039-3400993. PMID: 31887748

Shah, AA, Wang, D, **Hirsch, E**. (2020) Nucleic acid-based screening of maternal serum to detect viruses in women with labor or PROM. *Reproductive Sciences* 27:537-544. doi: 10.1007/s43032-019-00051-2. PMID: 31925769

Shanes, E, **Propst, L, Ouyang, DW**, Ernst, LM. (2019) Recurrent non immune fetal hydrops associated with IPEX syndrome. *Pediatric and Developmental Pathology* Oct;22(5):465:471.

Smith, BM, Duncan, FE, Ataman, L, Smith, K, Quinn, GP, Chang, RJ, Finlayson, C, **Hirschfeld-Cytron, J**, et al. (2018) The National Physicians Cooperative: Transforming fertility management in the cancer setting and beyond. *Future Oncology* Dec;14(29):3059-3072.

Sossenheimer, PH, Andersen, MJ, Jr, Clermont, MH, **Hoppenot, CV**, Palma, AA, Rogers, SO, Jr. (2018) Structural violence and trauma outcomes: An ethical framework for practical solutions. *Journal of the American College of Surgeons* Nov;227(5):537-542.

Starnes, SE, Nardi, F, Fitchev, P, **Plunkett, BA**, Thorpe, C, Wang, CH, Vogler, C, Crawford, SE. (2019) Influence of maternal obesity and metabolic and vascular mediators in twin-twin transfusion syndrome. *Reproductive Biology* 19(2):165-172. PMID: 31147266

Stephens, JE, Kessler, CL Buss, C, Miller, GE, Grobman, WA, **Keenan-Devlin, L, Borders, AE**, Adam, EK. (2020) Early and current life adversity: Past and present influences on maternal diurnal cortisol rhythms during pregnancy. *Developmental Psychobiology*.

Stoye, DQ, Andrew, R, Grobman, WA, Adam, EK, Wadhwa, PD, Buss, C, Entringer, S, Miller, GE, Boardman, JP, Seckl, JR, **Keenan-Devlin, LS, Borders, AEB**, Reynolds, RM. (2020) Maternal Glucocorticoid Metabolism Across Pregnancy: A Potential Mechanism Underlying Fetal Glucocorticoid Exposure. *Journal of Clinical Endocrinology and Metabolism* Mar 1;105(3). doi: 10.1210/clinem/dgz313. PubMed PMID: 32108902; PubMed Central PMCID: PMC7047583.

Suresh, S, Brewerton, C, **Plunkett, B**. (2020) Strip of the Month: Fetal anomalies in a pregnant woman with history of Hirschsprung's disease and a tracheal web. *NeoReviews* Sept.

Tu, FF, Datta, A, Atashroo, D, **Senapati, S, Roth, G**, Clauw, DJ, **Hellman, KM**. (2020) Clinical profile of comorbid dysmenorrhea and bladder sensitivity: A cross-sectional analysis. *American Journal of Obstetrics and Gynecology* doi: 10.1016/j.ajog.2019.12.010.

Weyenberg, L, Neerhof, M. (2019) Strip of the month: Velamentous cord insertion. *NeoReviews* Jul;20(7):e419-e427.

2018–2020 **Presentations**

Note: Citations published in 2018 but not included in the 2018 Annual Report are also listed.

Adams, MG, Hirsch, E. (2019) Screening for glucose intolerance in successive pregnancies. Society for Reproductive Investigation 66th Annual Scientific Meeting, Paris, France.

Adams, MG, McCulloch, C, **Hirsch, E**. (2020) The Mother of Invention: Pregnancy Management and Outcomes During the COVID-19 Crisis. Oral presentation, 87th Annual (Virtual) Meeting of the Central Association of Obstetricians and Gynecologists.

Armouti, M, Alvarez, J, **Hirshfeld-Cytron, J**, Stocco, C. (2019) Salt inducible kinase is a negative regulator of FSH in ovarian granulosa cells. Endocrine Society Annual Meeting, New Orleans, LA.

As-Sanie, S, Hummelshoj, L, Laufer, MR, Missmer, SA, Murji, A, Vincent, K, Eichner, S, Cross, S, Soliman, AM, **Tu, F**. (2019) Development and preliminary content validation of a patient-reported tool for assessing the burden of endometriosis. International Pelvic Pain Society Annual Scientific Meeting, Toronto, Ontario, Canada.

Ashenafi, G, Schroer, M, Tu, FF, Hellman, KM. (2020) The contribution of central vs. peripheral nociceptive mechanisms and psychosocial factors to pain interference in women with menstrual pain. Society for Neuroscience Chicago Chapter (canceled due to COVID-19 pandemic).

Borders, A. (2019) AIM Safety Bundles Intro Plus Two Bundles: Hemorrhage and Hypertension. ACOG Annual Clinical and Scientific Meeting, Nashville, TN.

Borders, A. (2019) Content expert, University of California San Francisco Preterm Birth Initiative Advisory Board Meeting, San Francisco, CA.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Birth Certificate Accuracy Initiative. Alaska Perinatal Quality Collaborative Annual Meeting, Anchorage, AK.

Borders, A. (2020) Illinois Perinatal Quality Collaborative COVID-19 Strategies for OB and Neonatal Units webinars. Ten webinars hosted since April 3, 2020.

Borders, A. (2018) Illinois Perinatal Quality Collaborative: Lessons Learned from the Severe Maternal Hypertension Initiative. Society for Maternal-Fetal Medicine, Scientific Session Presentation, Dallas, TX.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Maternal Hypertension Initiative. Ohio Perinatal Quality Collaborative Annual Meeting, Columbus, OH.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Maternal Hypertension Initiative. Presentation at the Alaska Perinatal Quality Collaborative Annual Meeting, Anchorage, AK.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Mothers and Newborns Affected by Opioids and Severe Maternal Hypertension. Pennsylvania Perinatal Quality Collaborative Annual Meeting, Philadelphia, PA.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Mothers and Newborns Affected by Opioids—OB Initiative. Alaska Perinatal Quality Collaborative Annual Meeting, Anchorage, AK.

Borders, A. (2020) Illinois Perinatal Quality Collaborative: Mothers and Newborns Affected by Opioids—OB Initiative. Pennsylvania Perinatal Quality Collaborative Annual Meeting, Philadelphia, PA.

Borders, A. (2019) Illinois Perinatal Quality Collaborative: Severe Maternal Hypertension Initiative. Quality Improvement and Patient Safety national meeting, Toronto, Ontario, Canada.

Borders, A. (2018) LPQC: Severe Maternal Hypertension Initiative and ILPQC: Supporting Hospital Teams with QI Methodologies. National Network of Perinatal Quality Collaboratives Summit, Atlanta, GA.

Borders, A. (2019) Panel Discussion—The ILPQC Experience with AIM, Obstetrics Breakout Session: Severe Maternal Hypertension Safety Bundle and ILPQC: Improving outcomes through the magic of collaboration. Texas Collaborative for Healthy Mothers and Babies Summit, Austin, TX.

Borders, A. (2020) Stress, Pregnancy and Health: Exploring key pathways to adverse birth outcomes. Canadian Perinatal Research Meeting, Banff, Alberta, Canada.

Borders, A. (2019) Stress, Pregnancy and Health: Exploring key pathways to adverse birth outcomes. Grand Rounds, Department of Obstetrics and Gynecology, University of California-San Francisco, San Francisco, CA.

Borders, A. (2018) Stress, Pregnancy and Health: What is the role of inflammation? Maternal and Infant Microbiome Symposium (MiMOS), University of Chicago, Chicago, IL.

Braginsky, L, for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network, Bethesda, MD. (2019) Intrapartum electrocardiogram (ECG) in small and large-for-gestational age fetuses. Society for Maternal-Fetal Medicine 39th Annual Meeting, Las Vegas, NV.

Braginsky, L, Adams, MG, Datta, A, **Plunkett, BA**. (2019) Excessive gestational weight gain in women with and without pregestational diabetes. Society for Reproductive Investigation 66th Annual Scientific Meeting, Paris, France.

Braginsky, L, Javellana, M, Cleveland, E, Boyle, D, Plunkett, BA. (2019) Improved patient satisfaction with tissue adhesive as compared to sterile strips after cesarean wound closure. Society for Maternal-Fetal Medicine 39th Annual Meeting, Las Vegas, NV.

Braginsky, L, Javellana, M, Cleveland, E, Elue, R, Wang, C, Boyle, D, **Plunkett, BA**. (2019) Improved patient satisfaction with tissue adhesive as compared to sterile strips after cesarean wound closure. Poster presentation at the Society for Maternal-Fetal Medicine 39th Annual Pregnancy Meeting, Las Vegas, NV.

Braginsky, L, Javellana, M, Cleveland, E, Elue, R, Wang, C, Boyle, D, Plunkett, BA. (2019) A randomized, controlled trial of tissue adhesive compared to sterile strips for cesarean delivery. Society for Maternal-Fetal Medicine 39th Annual Meeting, Las Vegas, NV.

Cockrum, RH, Tu, FF, Roth, GE, Garrison, EF, Oladosu, FA, **Hellman, KM**. (2018) Development of a method to characterize vascular contributions to cramping pain in dysmenorrhea. Abstract published in The Journal of Minimally Invasive Gynecology. AAGL. Las Vegas, NV.

de los Reyes, S, Dude, A, **Adams, M, Plunkett, B, Hirsch, E**. (2020) The association between abnormal glucose screening in nondiabetic index pregnancies and gestational diabetes in subsequent pregnancies. Society for Maternal-Fetal Medicine 40th Annual Pregnancy Meeting, Grapevine, TX.

de los Reyes, S, Dude, A, Castille, D, **Ouyang, D, Plunkett, B**. (2020) The association between maternal body mass index and the risk of perinatal depression. Accepted for poster presentation at the Society for Reproductive Investigation 67th Annual Scientific Meeting, Vancouver, British Columbia (canceled due to COVID-19 pandemic).

de los Reyes, S, Adams, MG, Dude, A, **Hirsch, E**. (2020) Association between abnormal glucose screening in non-diabetic index pregnancies and gestational diabetes in subsequent pregnancy. Abstract #511, 40th Annual Pregnancy Meeting, Society for Maternal-Fetal Medicine, Grapevine, TX.

Goldberg, RP. (2019) Minimally invasive transvaginal pelvic floor repair. Live OR surgical demonstration and video. Hospital HC, Bogota, Colombia.

Goldberg, RP. (2019) New meshes for the treatment of apical and anterior prolapse. VII Jornada Inernacional de Uroginecoooogia, Bogota, Colombia.

Goldberg, RP. (2019) Urogynecologic master class 2019: Taking your surgical skills to the next level. American Urogynecologic Society, Tampa, FL.

Hammer, K, Pavlovic, Z, Raff, M, Elliott, S, Bradley, D, **Hirshfeld-Cytron, J**. (2019) Parent perspective on childhood developmental milestones after assisted reproductive technology, a national survey. Pacific Coast Reproductive Society Meeting, Indian Wells, CA.

Hellman, KM, Laus, K, Oladosu, F, **Garrison, E**. (2018) Noninvasive objective MRI method to evaluate uterine hemodynamic function and the effects of naproxen. AAGL. Las Vegas, NV.

Hellman, KM, Oladosu, F, **Tu, F**. (2019) (133) Preliminary Analysis of the Relationship Between Refractory Menstrual Pain and Naproxen Metabolism. Abstract published in The Journal of Pain 20.4: S9-S10. American Academy of Pain Medicine, Milwaukee, WI.

Hellman, KM, Roth, GE, Dillane, KD, Steiner, NS, **Tu, FF**. (2019) Women with heightened dysmenorrhea and silent bladder sensitivity exhibit broad abnormalities in pain experience and quantitative sensory testing. International Pelvic Pain Society, Toronto, Ontario, Canada.

Hellman, KM, Tu, F, Garrison, E, Oladosu, F. (2018) Identification of a preclinical phenotype for the development of painful bladder syndrome in women with isolated dysmenorrhea. Society for Reproductive Investigation, Florida.

Hirsch, E. (2019) Creative writing by medical practitioners: Process and product. American College of Obstetrics and Gynecology 67th Annual Clinical and Scientific Meeting, Nashville, TN.

Hirsch, E, de los Reyes, S, Adams, MG. (2019) The relationship between glucose testing in an index pregnancy and outcomes in a subsequent pregnancy: Implications for glucose intolerance testing guidelines. Central Association of Obstetricians and Gynecologists 86th Annual Meeting, Cancun, Mexico.

Hirsch Y, Sabini MF, Feinberg LJ, **Silver, RK**. (2018) Closing the loop between obstetric providers and the peer review committee: A preferred paradigm for hospital-based perinatal quality assurance. Central Association of Obstetricians and Gynecologists Annual Meeting, Minneapolis, MN.

Hirshfeld-Cytron, JE. (2018) Comparison of perinatal outcomes between spontaneous vs. commissioned cycles in gestational carriers for single and same-sex male intended parents: A preliminary analysis. American Society for Reproductive Medicine Scientific Congress and Expo, Denver, CO.

Hoppenot, C, Peters, PN, Cowan, M, Lee, NK, Yamada, SD. (2019) Outcomes after gastrostomy tubes for malignant bowel obstruction. Society of Gynecologic Oncology 50th Annual Meeting, Honolulu, HI.

Hoppenot, C, Serelka, A, Khandekar, J, **Moore, ED, Rodriguez, GC**, Hurteau, JA, **Vogel, TJ**. (2019) Benefit of genome-driven treatment in gynecologic oncology patients. Society of Gynecologic Oncology 50th Annual Meeting, Honolulu, HI.

Hunter Cohn, K, Zhang, Q, Miller, B, Arredondo, F, Hinckley, M, Gutmann, JN, Benadiva, A, Nulsen, J, Leondires, MP, Letterie, G, **Hirshfeld-Cytron, JE**, Copperman, AB, Yurttas Beim, P. (2018) Decreased ovarian reserve biomarkers are associated with reduced fecundability in women with no history of infertility. American Society for Reproductive Medicine Scientific Congress and Expo, Denver, CO.

Keenan-Devlin, L. (2020) Disparities in Perinatal Health. Department of Obstetrics and Gynecology Clerkship Orientation, University of Chicago Pritzker School of Medicine.

Keenan-Devlin, L. (2019) Empower Parents, Enable Breastfeeding: Breastfeeding Disparities and Strategies to Improve Support. Department of Obstetrics and Gynecology Grand Rounds, NorthShore Evanston Hospital.

continued

Keenan-Devlin, L. (2019) Empower Parents, Enable Breastfeeding: Breastfeeding Disparities and Strategies to Improve Support. Department of Obstetrics and Gynecology Grand Rounds, University of Chicago Pritzker School of Medicine.

Keenan-Devlin, L. (2020) Pregnancy and Breastfeeding Disparities among Young Parents: Addressing Barriers and Providing Support. Department of Obstetrics and Gynecology PAG Lecture Series, University of Chicago Pritzker School of Medicine.

Keesara, S, Kim, J, Adams, M, Silver, RK. (2019) Impact of perinatal depression on contraceptive planning. American College of Obstetrics and Gynecology 67th Annual Clinical and Scientific Meeting, Nashville, TN.

Kim, JJ, Silver, RK, Feingold, SB, Lewis, BM. (2018) The psychologist's role in postpartum psychosis: From recognition, to treatment, to legal advocacy. American Psychological Association 126th Annual Convention, San Francisco, CA.

Klipstein, S. (2019) Fertility preservation in children and adolescents. American Academy of Pediatrics National Conference and Exhibition, New Orleans, LA.

Klipstein, S. (2019) The ethics of baby making in the age of CRISPR. American Society for Reproductive Medicine Scientific Congress and Expo, Philadelphia, PA.

Laus, K, Iyer, S, **Rugino, A**, Botros, C, **Lozo, S, Goldberg, RP**, Tomezsko, JT, Botros-Brey, S, **Gafni-Kane, A, Sand, PK**. (2018) Subjective and objective responses to PTNS and predictors for success: A retrospective cohort study of percutaneous tibial nerve stimulation for overactive bladder. American Urogynecologic Society, Pelvic Floor Disorders Week 40th Annual Scientific Meeting, Chicago, IL.

Lazo, I, Ratnaparkhi, R, **Jenkins Vogel, MT, Moore, E, Rodriguez, G**, Kirschner, C. (2020) Sexual concerns, psychosocial morbidity and quality of life in gynecologic cancer survivors.

Liebermann, J, Sanchez-Julias, S, Brohammer, R, Schwab, J, Uhler, ML, **Hirshfeld-Cytron, JE**, Sipe, C. (2019) Ongoing pregnancy rate of vitrified-warmed blastocyst transfers in autologous patients: Single vs. double transfer according to the day of development. American Society for Reproductive Medicine Scientific Congress and Expo, Philadelphia, PA.

Lockrow, E, Banks, E, Chen, G, Miyazaki, D, **Senapati, S**. (2019) Assessing your skills with simulated vaginal and laparoscopic hysterectomy and retropubic slings (ASSESS). American College of Obstetrics and Gynecology 67th Annual Clinical and Scientific Meeting, Nashville, TN.

Lozo, S, Botros, C, **Gafni-Kane, A**, Datta, A, **Senapati, S**. (2019). Do we need to teach basic surgical skills? Society of Gynecologic Surgeons 45th Annual Scientific Meeting, Tucson, AZ.

Lozo, S, Botros, C, **Goldberg, R**, Datta, A, **Gafni-Kane, A**. (2019) Long-term outcomes (7–10 years) of vaginal hysterectomy and uterosacral ligament suspension versus sacrospinous hysteropexy with mesh. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Lozo, S, Chi, N, **Botros, C, Rostami Nia, G**, Tomezsko, J, Wang, R, Botros-Brey, S. (2018) Correlation between collagen tissue matrix changes and pelvic organ prolapse staging. American Urogynecologic Society, Pelvic Floor Disorders Week 40th Annual Scientific Meeting, Chicago, IL.

Lozo, S, Wagner, D, **Goldberg, R**, Shah, N. (2019). A quality initiative to confirm penicillin allergy, and reduce overlabeling of penicillin allergy, in an aging female population. Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction Annual Winter Meeting, Miami, FL.

Lozo, S, Wagner, D, **Goldberg, R**, Shah, N, **Silver, RK**, Solomonides, T. (2019) Should penicillin allergy be confirmed during preoperative testing? American College of Obstetrics and Gynecology 67th Annual Clinical and Scientific Meeting, Nashville, TN.

MacGregor, C, Ernst, L, Victor, T, Sugasini, D, Venkatasubramanian, P, Wyrwicz, A, Gastfield, R, Choi, A, Subbaiah, P, **Plunkett, B**. (2020) Long chain polyunsaturated fatty acid transport in the placenta of normal pregnancies. Accepted for poster presentation at the Society for Reproductive Investigation 67th Annual Scientific Meeting, Vancouver, British Columbia (canceled due to COVID-19 pandemic).

MacGregor, C, Ernst, L, Victor, T, Sugasini, D, Venkatasubramanian, P, Wyrwicz, A, Gastfield, R, Choi, A, Subbaiah, P, **Plunkett, B**. (2020) Phospholipid composition in placental regions in normal pregnancy. Accepted for poster presentation at the Society for Reproductive Investigation 67th Annual Scientific Meeting, Vancouver, British Columbia (canceled due to COVID-19 pandemic).

MacGregor, C, Freedman, A, Keenan-Devlin, L, Miller, G, Williamson, D, Wadhwa, P, Culhane, J, Simhan, H, Grobman, W, Adam, E, **Borders, A**. (2019) Maternal self-reported discrimination and association with gestational diabetes. Society for Reproductive Investigation 66th Annual Scientific Meeting, Paris, France.

MacGregor, C, Neerhof, M, Sperling, M, Wehmeyer, M, Alspach, D, **Plunkett, B**, Choi, A, Blumenthal, R. (2020) Evaluation of opioid use following cesarean delivery after implementation of enhanced recovery after surgery. Poster presentation at the Society for Maternal-Fetal Medicine 40th Annual Pregnancy Meeting, Grapevine, TX.

Main, S, **Borders, AEB**. (2019) AIM safety bundles intro plus two bundles: Hemorrhage and hypertension. American College of Obstetrics and Gynecology 67th Annual Clinical and Scientific Meeting, Nashville, TN.

Minhas, R, Chintala, S, **Rodriguez Kovacs, J**, Mueller, A, Naseem, H, Lopes Perdigao, J, Rana, S. (2019) Maternal angiogenic profile stratified by race in uncomplicated women and those with hypertensive disorders of pregnancy. Society for Maternal-Fetal Medicine 39th Annual Meeting, Las Vegas, NV.

Muneyyirci-Delale, O, Archer, DF, Kim, JHJ, Liu, R, Owens, CD, **Puscheck, EE**. (2019) Phase 3 trial results: Efficacy and safety of elagolix in a subset of women with uterine fibroids and adenomyosis. American Society for Reproductive Medicine Scientific Congress and Expo, Philadelphia, PA.

Nelson, O. (2020) Chemopreventive effect of progestin and vitamin D in the mogp-TAg ovarian cancer mouse model, Society of Gynecologic Oncology (SGO) Annual Meeting Program (2020).

O'Hara, C, Mingen, F, Barbeau, J, Simpson, P, Sheridan, K, Chelimsky, G, Janata, J, **Tu, F**, Chelimsky, T. (2019) Differing urologic parameters in chronic pelvic pain syndromes. International Pelvic Pain Society Annual Scientific Meeting, Toronto, Ontario, Canada.

Oladosu, F, **Garrison, E, Hellman, K**. (2018) NSAID-resistant menstrual pain is due to low serum levels of NSAIDs. Society for Reproductive Investigation, Florida.Pavlovic, Z, Hammer, KC, Kaplan, B, Ahmad, AK,

Pincus, JB, Laudano, M, Downing, K, Leegant, A. (2018) A survey of practice patterns of combination anti-incontinence and prolapse repair procedures amongst female pelvic medicine and reconstructive surgery providers. American Urogynecologic Society, Pelvic Floor Disorders Week 40th Annual Scientific Meeting, Chicago, IL.

Plunkett, BA, on behalf of the Maternal-Fetal Medicine Unit Network. (2019) Association of child neurodevelopmental outcome and breastfeeding. Poster presentation at the Society for Maternal-Fetal Medicine 39th Annual Pregnancy Meeting, Las Vegas, NV.

Plunkett, BA, on behalf of the Maternal-Fetal Medicine Unit Network. (2019) Maternal diabetes and intrapartum fetal electrocardiogram. Poster presentation at the Society for Maternal-Fetal Medicine 39th Annual Pregnancy Meeting, Las Vegas, NV.

Plunkett, BA, on behalf of the Maternal-Fetal Medicine Unit Network. (2019) The association of labor with neonatal respiratory outcomes at 36–40 weeks gestation. Podium presentation at the Society for Maternal-Fetal Medicine 39th Annual Pregnancy Meeting, Las Vegas, NV. cologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Tu, F. (2019) Dysmenorrhea: A ticking time bomb? 4th World Congress on Abdominal and Pelvic Pain, London, UK.

Tu, F. (2019) Dysmenorrhea: Mere disturbance or a "still greater evil"? Mount Sinai/University of Toronto Interhospital Grand Rounds, Toronto, Ontario, Canada.

Tu, F. (2019) Her health. Her life. Her world. NorthShore University HealthSystem—Innovate & Transform Lecture Series, Evanston, IL.

Tu, F. (2019) How looking at the past will make pelvic pain syndromes a thing of the past. NorthShore University HealthSystem Lunch and Learn Community Health Series, Evanston, IL.

Tu, F, As-Sanie, S, Soliman, AM, Chiuve, S, Cross, S, Eichner, S, Antunez, O, Schneider, B, Missmer, S. (2019) Impact of Endometriosis on Women's Life Decisions and Goal Attainment: Survey Results. International Pelvic Pain Society Annual Scientific Meeting, Toronto, Ontario, Canada.

Tu, FF, Schroer, M, Ashenafi, G, **Hellman, KM**. (2020) Comparative assessment of nociceptive mechanisms in endometriosis vs.

Plunkett, BA, Grobman, WA, Reid, KJ, Zee, PC, Silver, RM, Simhan, HN, Haas, DM, Mercer, BM, Wapner, RJ, Wing, DA, Parry, SI, Saade, GR, Reddy, UM, Facco, FL. (2019) Objectively-measured sleep parameters and antepartum depressive symptoms. Poster presentation at the Society for Maternal-Fetal Medicine 39th Annual Pregnancy Meeting, Las Vegas, NV.

Puscheck, E. (2019) Clinical pearls in infertility. American Institute of Ultrasound Medicine Convention, Orland, FL.

Puscheck, EE, Dutta, S, Abdulhasan, MA, Gurdziel, K, Ruden, D, Rappolee, D. (2019) Innovative high throughout screen in embryonic stem cells reports stress-forced imbalanced differentiation, important to analyze stress in IVF and drug development: Analyses using bulk and single-cell RNA-Seq. American Society for Reproductive Medicine Scientific Congress and Expo, Philadelphia, PA.

Puscheck, EE, Kirk, MJ, Anderson, A, Ivanovic, M, Levrant, S, Lazarevic, A, Jeyendran, R. (2019) The most competent embryo from the cohort. American Society for Reproductive Medicine Scientific Congress and Expo, Philadelphia, PA.

Ratnaparkhi, R, **Lazo, I, Jenkins Vogel, MT, Moore, E, Rodriguez, G**, Kirschner, C. (2020) Fear of recurrence in gynecologic cancer survivors.

Rodriguez Kovacs, J, Bregand-White, J, Ducksworth, L, Abramowicz, J (2019). Binder phenotype: An early prenatal marker for chondrodysplasia puncata. American Institute of Ultrasound in Medicine Annual Meeting, Orlando, FL.

Rodriguez Kovacs, J, Chartrand, T, **Abramowicz, J**. (2018) Spontaneous chorioamniotic separation misdiagnosed as inter-twin membrane. American Institute of Ultrasound in Medicine Annual Convention, New York, NY.

Rodriguez Kovacs, J, Schneider, P, Abramowicz, J. (2019) Paternal uniparental disomy 14. An unsuspected ground for large omphalocele. American Institute of Ultrasound in Medicine Annual Meeting, Orlando, FL.

Rostami Nia, G, Chang, C, **Goldberg, RP.** (2019) Transvaginal rectopexy for treating obstructed defecation symptoms in the presence of sliding rectum: Safety and feasibility trial. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Rostami Nia, G, Hegde, A, Weinstein, MM, Friedman, T, Lieschen, H, Quiroz, LH. (2019) Practical pelvic floor ultrasonography, didactics and demonstration. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Rostami Nia, G, Lozo, S, Botros, C, Sand, PK, Goldberg, RP. (2018) Predictive factors for overactive bladder symptoms change after one year of monthly PTNS treatment. American Urogynecologic Society, Pelvic Floor Disorders Week 40th Annual Scientific Meeting, Chicago, IL.

Roth, GE, Hellman, KM, Silton, RL, **Tu, FF**. (2019) Dimensional analysis of psychological symptoms in multimodal experimental pain sensitivity in women with pelvic pain. Society for Research in Psychopathology 33rd Annual Meeting, Buffalo, NY.

Roth, GE, Hellman, KM, Silton, RL, **Tu, FF**. (2019) Women with heightened dysmenorrhea and silent bladder sensitivity exhibit broad abnormalities in pain experience and quantitative sensory testing. International Pelvic Pain Society Annual Scientific Meeting, Toronto, Ontario, Canada.

Routzong, MR, **Rostami Nia, G, Goldberg, RP**, Abramowitch, SD. (2019) Pelvic floor shape changes during evacuation in controls vs. women with obstructed defecation. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Routzong, MR, **Rostami Nia, G**, Moalli, PA, Abramowitch, SD. (2019) Statistical shape modeling demonstrates relaxation of the pelvic floor during pregnancy. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Sand, PK. (2019) Current and future pharmacological treatment of urinary incontinence. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK. (2019) Office evaluation for pelvic floor dysfunction. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK. (2019) The place for single incision slings. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK. (2019) Treatment of anterior compartment prolapse with and without adjuvant grafts. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK. (2019) Vaginal repair of apical prolapse. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK. (2019) What really works for bladder pain syndrome: Current and future treatment. Rodney Appell Memorial Update in Gynecologic Urology 24th Annual Conference, Beaches, Turks and Caicos.

Sand, PK, Benson, K, Moalli, PA, Versi, E. (2019) Durable effect of selective bladder denervation of the trigone supports a neurogenic etiology of refractory OAB. American Urogynecologic Society and International Urogynecological Association Scientific Meeting, Nashville, TN.

Steele, SE, Whiteson, K, Lane, FL, **Dutta, S**. (2019) Fecal microbiota transplantation for the treatment of refractory recurrent urinary tract infection. American Urogyneprimary dysmenorrhea. AAGL Online.

Tu, FF, Schroer, M, Ashenafi, G, **Hellman, KM**. (2020) Exploring the neuro-immune mechanisms causing distinctive nociceptive profiles in women with endometriosis vs. pure dysmenorrhea. PsychoNeuroImmunology Research Society, Los Angeles, CA (canceled due to COVID-19 pandemic).

Zhang, C, Cole D, **Silver, RK**. (2019) Differences in male and female medical student perceptions of the gender gap in obstetrics and gynecology. Council on Resident Education in Obstetrics and Gynecology and Association of Professors of Gynecology and Obstetrics Annual Meeting, New Orleans, LA.

2019–2020 Grants and Research Funding

Ann Borders, MD, MSc, MPH

Understanding socioeconomic disparities in perinatal risk: The role of epigenetic and transcriptional regulation in the placenta (SPAH). Co-Investigator (Co-I). National Institutes of Health/National Institute on Minority Health and Health Disparities (NIH/NIMHD)/Northwestern University (R01MD01174901)

Psychosocial Intervention, Maternal Inflammation and Birth Outcomes: Centering vs. Routine Prenatal Care (PIINC). Principal Investigator (PI). NIH/Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) (1R01HD092446-01A1)

Mothers and Newborns Affected by Opioids Initiative. ILPQC Executive Director, Obstetric Lead and Study PI. Centers for Disease Control and Prevention: State-Based Perinatal Quality Collaboratives/ Northwestern University (NU58DP006360-01-00)

Illinois Perinatal Quality Immediate Postpartum Long-Acting Reproductive Contraceptive (LARC) quality improvement initiative. PI. JB and MK Pritzker Foundation

Illinois Perinatal Quality Collaborative—Working Together for Healthier Moms and Babies in Illinois. PI. Illinois Department of Human Services (DHS)

Mothers and Newborns Affected by Opioids Initiative. PI. Illinois Department of Public Health (IDPH) Title V

Illinois Perinatal Quality Collaborative. Co-I. (UIC; PIs: Stacie Geller, MPH, PhD, and Arden Handler, DrPH, MPH): Health Resources and Services Administration (HRSA) State Maternal Health Innovation Program Awards (HRSA-19-07)

Optimizing Patient Navigation for Perinatal Care (OPTIMIZE). Co-I. Subaward with Northwestern (PI: Simon) NIH/NICHD (1 R01 MD014068-01A1)

Illinois Perinatal Quality Collaborative. Co-I. Subaward with Northwestern (ACOG)—Alliance for Innovation on Maternal Health Grant from HRSA Maternal and Child Health Bureau (UC4MC28042)

Echo Pro Research Resource: A Developmentally-Based Measurement Science Framework for Assessing Environmental Exposure and Child Health. Co-I. Subaward with Northwestern. NIH/NICHD (OD02331901)

Samantha de los Reyes, MD

Single Untreated Glucose and Risks (SUGAR). PI. Institute for Translational Medicine (ITM) Grant

Mara Dinsmoor, MD, MPH

Maternal-Fetal Medicine Units Network: A Randomized Trial to Prevent Congenital Cytomegalovirus Infection (CMV). PI. SubAward Agreement with Northwestern University

Sonia Dutta, MD

Antibiotic Suppression for Recurrent Urinary Tract Infections and Its Effect on the Urinary Microbiota and Mycobiota in Post-Menopausal Women. PI. NorthShore University HealthSystem Pilot Grant

Evaluation of Safety and Efficacy of the ApyxTM Device for the Repair of Pelvic Organ Prolapse (POP). Co-I. Escala Medical

The mission of the Division of Reproductive Biology Research in the Department of Obstetrics and Gynecology is to improve the lives and health of our patients and their children through research and quality initiatives. The Division fully supports the high-quality research and quality endeavors that take place within the department.

The role of the Division is to enhance investigation, data acquisition, analyses and dissemination. The critical information generated from these research studies and quality initiatives can be utilized ultimately to improve clinical care.

Departmental research spans the depth and breadth of the field of obstetrics and gynecology and includes topics such as gynecologic pain, gynecologic cancer, maternal and fetal health preterm birth, perinatal stress and mood disorders, urinary incontinence, and quality of care.

Quality Initiatives focus on improving peripartum health outcomes around issues as diverse as opioid use during and after pregnancy, promoting vaginal birth and addressing disparities in birth outcomes.

Beth Plunkett, MD, MPH
Vice Chair Reproductive Biology Research and Clinical Professor

Alexa Freedman, PhD

Maternal psychological stress, adverse birth outcomes and the role of inflammatory mediators in the placenta. PI. NIH/NICHD (F32HD100076)

Adam Gafni-Kane, MD

A Prospective, Nonrandomized, Parallel Cohort, Multicenter Study of Xenform vs. Native Tissue for the Treatment of Women with Anterior/Apical Pelvic Organ Prolapse, Protocol U9920. PI. Boston Scientific

Kevin Hellman, PhD

Noninvasive Imaging of Uterine Physiology to Improve Treatment for Dysmenorrhea (Uterine MRI). PI. NIH/NICHD (R21HD091502)

Deciphering the Hormonal and Nociceptive Mechanisms Underlying Bladder Pain (Chronic Pain Risk Associated with Menstrual Period Pain, or CRAMPP). Co-I. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) (R01DK10036803)

Early Menstrual Pain Impact on Multisensory Hypersensitivity (EMPATHY). Co-I. NIH/NICHD (R01HD096332)

Mechanistic Characterization of Uterine Pain (M-CUP) to Improve Diagnosis and Treatment for Dysmenorrhea. PI. NIH/NICHD (R01HD098193)

Emmet Hirsch, MD

The Molecular Pathogenesis of Health Disparities in Infection-Induced Preterm Birth. PI. NIH (5 R01 HD041689-04)

Prevention of Preterm Birth Using the Collectin Surfactant Protein A (SP-A). PI. NIH/NICHD (1R01HD096209-01A1)

Psychosocial Intervention, Maternal Inflammation and Birth Outcomes: Centering vs. Routine Prenatal Care (PIINC). Co-I. NIH/NICHD (1R01HD092446-01A1)

A Novel Use for Surfactant Protein A (SP-A) to Prevent Preterm Delivery. PI. Ferring Research Institute (FRI) Innovation Grant.

Surfactant Protein A (SP-A): A Novel Agent to Prevent Preterm Birth. PI. The Associate Board, NorthShore University HealthSystem

Pathogenesis of Prematurity Study. PI. Marvin and Kay Lichtman Foundation

Mary Tilley Jenkins Vogel, MD

Pilot study of the impact of early palliative care on quality of life in recurrent ovarian, fallopian tube and primary peritoneal cancer. PI. NorthShore Breast and Ovarian Research Program: Concept/Pilot Award

Improving Care Through Better Documentation: Evaluation of a Documentation Intervention on Health-Assessment Metrics on an Inpatient Gynecologic Oncology Service. PI. NorthShore Medical Group Obstetrics and Gynecology Innovation Grant Award

Assessing the impact of combination therapy with metformin and statins on endometrial cancer: Implications for prevention and treatment. PI. NorthShore University HealthSystem Research Institute, Medical Group Pilot Grant Program Award

A randomized trial of pelvic irradiation with or without concurrent weekly cisplatin in patients with pelvic-only recurrence of carcinoma of the uterine corpus. PI. NCI/Gynecological Oncology Group (GOG) 0238 (U10CA180868/NCT00492778)

A Randomized Phase II Trial of Paclitaxel and Carboplatin vs. Bleomycin, Etoposide and Cisplatin for Newly Diagnosed Advanced-Stage and Recurrent Chemo-Naïve Sex Cord-Stromal Tumors of the Ovary. PI. NCI/GOG 0264(U10CA180868/NCT01042522)

A randomized Phase II/III study of the combination of cediranib and olaparib compared to cediranib or olaparib alone, or standard of care chemotherapy in women with recurrent platinum-resistant or refractory ovarian, fallopian or primary peritoneal cancer. PI. NCI/NRG GY005 (U10CA180868/NCT02502266)

A Randomized Phase II/III Study of Pegylated Liposomal Doxorubicin and CTEP-Supplied Atezolizumab (IND 134427) vs. Pegylated Liposomal Doxorubicin/Bevacizumab and CTEP-Supplied Atezolizumab vs. Pegylated Liposomal Doxorubicin/Bevacizumab in Platinum-Resistant Ovarian Cancer. PI

A Phase III Study of Active Surveillance for Low Risk and a Randomized Trial of Carboplatin vs. Cisplatin for Standard Risk Pediatric and Adult Patients with Germ Cell Tumors GOG: AGCT1531. PI

A Randomized, Placebo-Controlled Phase II Trial of Metformin in Conjunction with Chemotherapy Followed by Metformin Maintenance Therapy in Advanced-Stage Ovarian, Fallopian Tube and Primary Peritoneal Cancer Adjuvant Treatment. PI

Lauren Keenan-Devlin, PhD

Interactions Between Perinatal Stress and Breastfeeding: Unpacking a Mechanism of Disparity. PI. NorthShore University HealthSystem Research Institute/Medical Group Pilot Grant Program Award

Breastfeeding Support Resources for NorthShore Community Health Center Patients with Babies in the Infant Special Care Unit (ISCU). PI. NorthShore University HealthSystem Associate Board

Jo Kim, PhD

Mobiles MOMS (Moms Overcoming Mood Symptoms). Project Director. NorthShore University HealthSystem Research Institute/ Medical Group Pilot Grant Program

NorthShore University HealthSystem Hotline Community Services Agreement. Project Director. State of Illinois Department of Human Services

Identifying and Helping Women and Families at Risk for Perinatal Mood Disorders: A Feasibility Study of Computer Adaptive Technology for Perinatal Depression. PI. Satter Foundation

Genetic Exploration of Maternal Mood (GEMM). Co-I. (PI: Gejman). NorthShore University HealthSystem Associate Board

ITM 2.0: Advancing Translational Science in Metropolitan Chicago. Co-I. (PI: Solway). NIH

Responsive eHealth Intervention for Perinatal Depression in Healthcare Settings (MomMoodBooster) Co-I. (PI: Smith). NIMH

Scaling Up Psychological Treatments for Perinatal Depression and Anxiety Symptoms via Telemedicine (SUMMIT) Co-I. (PI: Singla). Patient-Centered Outcomes Research Initiative (PCORI)

Caitlin MacGregor, MD

Magnetic Resonance Study: A Novel Assessment of Placental Function (MARS) PI. ITM Grant

Elena Moore, MD

Pilot Study of the Impact of Early Palliative Care on Quality of Life in Recurrent Ovarian, Fallopian Tube and Primary Peritoneal Cancer. PI. The NorthShore University HealthSystem Breast and Ovarian Research Program Concept/Pilot Award

Omar Nelson, PhD

Evaluation of the Effect of Progestins and Vitamin D on Inflammatory and Oxidative Chemopreventive Endpoints in the Fallopian Tube. PI. NorthShore Research Institute/Medical Group Pilot Grant Program

Examine the Effects of Progestin and Vitamin D on Molecular Signals in High-Risk Fimbriae and Low-Risk Ampulla in the Fallopian Tube Epithelium in Pre-and Postmenopausal Women. PI. NorthShore University HealthSystem Breast and Ovarian Research Program: Concept/Pilot Award

Cancer Prevention Research Fund. PI. NorthShore University HealthSystem, OB/GYN Department Research and Development Funding

Exploring the Role of Progestin and Vitamin D on Inflammation and Oxidative Stress in In Vitro and In Vivo Models of Ovarian Cancer. Co-I. NIH/NCI (R01CA214606-03S)1

Beth Plunkett, MD, MPH

Maternal-Fetal Medicine Units Network; A trial of pessary and progesterone for preterm prevention in twin gestation with a short cervix (PROSPECT). Co-I. Research Subaward Agreement with Northwestern University 60036981NUH

Maternal-Fetal Medicine Units Network; An observational study of hepatitis C virus in pregnancy (HCV). Co-I. Research Subaward Agreement with Northwestern University 60036981NUH

Maternal-Fetal Medicine Units Network; Childhood Pulmonary Complications in a Birth Cohort after a Randomized Trial of Antenatal Corticosteroids: The ALPS Follow-Up Study. Co-I. Research Subaward Agreement with Northwestern University

Maternal-Fetal Medicine Units Network; A Randomized Trial of Pessary in Singleton Pregnancies with a Short Cervix (TOPS). Co-I. Research Subaward Agreement with Northwestern University 60036981NUH

Maternal-Fetal Medicine Units Network; Tranexamic Acid for the Prevention of Obstetrical Hemorrhage After Cesarean Delivery: A Randomized Trial (TXA). Co-I. Research Subaward Agreement with Northwestern University 60036981NUH

A Randomized Trial of Continuous Positive Airway Pressure (CPAP) for Sleep Apnea in Pregnancy (SLEEP). Co-I. Research Subaward Agreement with Northwestern University

Magnetic Resonance Study: A Novel Assessment of Placental Function (MARS). Co-I. Single Untreated Glucose and Risks (SUGAR). Co-I

Automated Electronic Maternal Morbidity Surveillance (SAVEMOMS). Program Director. The Auxiliary of NorthShore University HealthSystem

Preeclampsia Risk Assessment: Evaluating Cut-Offs to Improve Stratification (PRAECES). Investigator. Cedars-Sinai Medical Center

continued

Gustavo Rodriguez, MD

Prevention of Ovarian and Fallopian Tube Carcinoma. Awardee. Bears Care

A Phase III, Randomized, Double-Blind, Placebo-Controlled, Multicentre Study of Olaparib Maintenance Monotherapy in BRCA Mutated Relapsed Ovarian Cancer Patients Who Are in Complete or Partial Response Following Platinum-Based Chemotherapy. PI. AstraZeneca (D0816C00002)

A Randomized, Placebo-Controlled, Phase II Trial of Metformin in Conjunction with Chemotherapy Followed by Metformin Maintenance Therapy in Advanced-Stage Ovarian, Fallopian Tube and Primary Peritoneal Cancer. PI. The University of Chicago

A Randomized Phase II/III Study of the Combination of Cediranib and Olaparib Compared to Cediranib or Olaparib Alone, or Standard of Care Chemotherapy in Women with Recurrent Platinium-Resistant or -Refractory Ovarian, Fallopian Tube or Primary Peritoneal Cancer (COCOS). PI

A Multicenter, Open-Label, Randomized, Phase III Trial to Compare the Efficacy and Safety of Lenvatinib in Combination with Pembrolizumab vs. Treatment of Physician's Choice in Participants with Advanced Endometrial Cancer. PI

Development of a Progestin-Based Pharmacologic Approach for the Effective Prevention of Ovarian Cancer. PI. NorthShore University HealthSystem Auxiliary Board

Sandy and Ron Schutz Ovarian Cancer Research Fund. Awardee

Molecular and Imaging Assessment of Fallopian Tube Health. PI. (Sub PI: Jennifer K. Barton) PTE Federal Award No. 1R21CA229707-01; Subaward No. 477775 University of Arizona

Effectiveness of a multivariable algorithm in predicting ovarian malignancy in women with a pelvic mass. PI. PROMISS Diagnostics

Vitamin D and Progestins for the Chemoprevention of Fallopian Tube/Ovarian Cancer. PI. NCI: 1R01CA214606-01A1

Exploring the Role of Progestin and Vitamin D on Inflammation and Oxidative Stress

in In Vitro and In Vivo Models of Ovarian Cancer. PI. NIH/NCI (R01CA214606-03S1)

Ghazaleh Rostami Nia, MD, MSc

Evaluation of Safety and Efficacy of the ApyxTM Device for the Repair of Pelvic Organ Prolapse (POP). PI. Escala Medical

Peter Sand, MD

A Prospective, Nonrandomized, Parallel Cohort, Multicenter Study of Uphold LITE vs. Native Tissue for the Treatment of Women with Anterior/Apical Pelvic Organ Prolapse. PI. Boston Scientific

Stimulation with eCoin in the Treatment of Overactive Bladder (OAB) with Urinary Urge Incontinence in Women: A Prospective Cohort Trial, Research Grant. PI. Valencia Technologies

A Phase II, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Single Treatment, Two-Stage, Dose-Finding Study Evaluating the Efficacy and Safety of BOTOX® Intravesical Instillation in Participants with Overactive Bladder and Urinary Incontinence, Protocol 1839-201-021. PI. Allergan Sales, LLC

Richard Silver, MD

Genetic Exploration of Maternal Mood. Co-I. Associate Board of NorthShore University HealthSystem

Identifying and helping women and families at risk for perinatal mood disorders: A Feasibility Study of Computer Adaptive Technology for Perinatal Depression. PI. Satter Foundation

ITM 2.0: Advancing Translational Science in Metropolitan Chicago/ Automated Symptom Tracking for Measurement-Based Care of Depression. Co-I. NIH (FP065282-01-PR/grant no. UL1TR002389)

Responsive eHealth Intervention for Perinatal Depression in Healthcare Settings (MomMoodBooster) Co-I. (PI: Smith). NIMH

Scaling Up Psychological Treatments for Perinatal Depression and Anxiety Symptoms via Telemedicine (SUMMIT) Co-I. (PI: Singla). PCORI

Frank Tu, MD, MPH

Deciphering the hormonal and nociceptive mechanisms underlying bladder pain. PI. National Institute of Diabetes and Digestive and Kidney Diseases (R01DK10036801/NCT02214550)

Interstitial Cystitis Effects of the Central Autonomic Network (ICECAN). Co-I. Sponsors and Collaborators: Medical College of Wisconsin, NorthShore, Case Western Reserve University (NCT03008382)

Pelvic pain and depression. Co-I. National Institute of Diabetes and Digestive and Kidney Diseases Multidisciplinary Approach to Pelvic Pain (MAPP) Network Subcontract with Northwestern University (DK08234208)

Noninvasive imaging of uterine physiology to improve treatment for dysmenorrhea. Co-I. Eunice Kennedy Shriver National Institute of Child Health and Human Development (R21HD091502)

Early Menstrual Pain Impact on Multisensory Hypersensitivity (EMPATHY). PI. NICHD (R01HD096332)

Mechanistic Characterization of Uterine Pain (M-CUP) to improve diagnosis and treatment for dysmenorrhea. Co-I. NICHD (R01HD098193)

Clinical Research Studies

The Department boasts a diverse portfolio of clinical trials that make available the latest options in prevention, diagnostics and therapy for a myriad of conditions in the disciplines of both obstetrics and gynecology.

DIVISION OF GYNECOLOGIC ONCOLOGY

Investigator	Clinical Studies	Sponsor
Jenkins Vogel	GOG-0238: A Randomized Trial of Pelvic Irradiation With or Without Concurrent Weekly Cisplatin in Patients With Pelvic-Only Recurrence of Carcinoma of the Uterine Corpus	NorthShore
Jenkins Vogel	GOG-0264: A Randomized Phase II Trial of Paclitaxel and Carboplatin vs. Bleomycin, Etoposide and Cisplatin for Newly Diagnosed Advanced-Stage and Recurrent Chemo-Naïve Sex-Cord Stromal Tumors	NRG Oncology
Jenkins Vogel	NRG-GY004: A Phase III Study Comparing Single-Agent Olaparib or the Combination of Cediranib and Olaparib to Standard Platinum-Based Chemotherapy in Women with Recurrent Platinum-Sensitive Ovarian, Fallopian Tube or Primary Peritoneal Cancer	NRG Oncology
Jenkins Vogel	AGCT 1531: A Phase III Study of Active Surveillance for Low-Risk and a Randomized Trial of Carboplatin vs. Cisplatin for Standard-Risk Pediatric and Adult Patients with Germ Cell Tumors	NRG Oncology
Jenkins Vogel	NRG-GY009: A Randomized Phase II/III Study of Pegylated Liposomal Doxorubicin and CTEP-Supplied Atezolizumab (IND 134427) vs. Pegylated Liposomal Doxorubicin/Bevacizumab and CTEP-Supplied Atezolizumab vs. Pegylated Liposomal Doxorubicin/ Bevacizumab in Platinum-Resistant Ovarian Cancer	NRG Oncology
Jenkins Vogel	A Multicenter, Open-Label, Randomized Phase III Trial to Compare the Efficacy and Safety of Lenvatinib in Combination with Pembrolizumab vs. Treatment of Physician's Choice in Participants with Advanced Endometrial Cancer	Merck Sharp & Dohme
Jenkins Vogel	High-Grade Endometrial Cancer Survival Based on Primary Surgical Staging Procedure Performed	NorthShore
Jenkins Vogel	NRG-GY005: A Randomized Phase II/III Study of the Combination of Cediranib and Olaparib Compared to Cediranib or Olaparib Alone, or Standard of Care Chemotherapy in Women with Recurrent Platinum-Resistant or -Refractory Ovarian, Fallopian Tube or Primary Peritoneal Cancer (COCOS)	NIH/NCI/The University of Chicago/Dana-Farber Cancer Institute
Jenkins Vogel	Assessing the Impact of Combination Therapy with Metformin and Statins on Endometrial Cancer: Implications for Prevention and Treatment	NorthShore (Pilot Grant Award)
Jenkins Vogel	Outcomes After Targeted Treatment Based on Somatic Tumor Genetic Testing for Women with Gynecologic Cancers	NorthShore
Jenkins Vogel	A Phase II Study of Tazemetostat (EPZ-6438) (IND # 138671) in Recurrent or Persistent Endometroid or Clear Cell Carcinoma of the Ovary, and Recurrent or Persistent Endometroid Endometrial Adenocarcinoma	NRG Oncology
Jenkins Vogel	A Phase II Trial of Ribociclib (LEE011) Plus Letrozole in Women with Recurrent Low-Grade Serous Carcinoma of the Ovary or Peritoneum, Protocol GOG 3026	GOG/Novartis
Kirschner	What is the utility of CT scan in the perioperative evaluation of patients undergoing robotic hysterectomy for endometrial cancer?	NorthShore
Kirschner	Needs of Gynecological Cancer Survivors	NorthShore
Moore	The Impact that Duration of Time on Chemotherapy Has on Survival in Recurrent Ovarian Cancer	NorthShore
Moore	Venous Thrombosis in Patients Receiving Extended Pharmacologic Prophylaxis Following Minimally Invasive Surgery for Endometrial Cancer	NorthShore
Moore	Pilot study of the impact of early palliative care on quality of life in recurrent ovarian, fallopian tube and primary peritoneal cancer	NorthShore Breast and Ovarian Research Program: Concept/ Pilot Award
Moore	Evaluation of Clinical Outcomes in Ovarian Cancer Patients Undergoing Variable Numbers of Postoperative Chemotherapy Cycles Following Neoadjuvant Chemotherapy and Interval Cytoreductive Surgery	NorthShore
Nelson	Evaluation of the Effect of Progestins and Vitamin D on Inflammatory and Oxidative Chemopreventive Endpoints in the Fallopian Tube	NorthShore Research Institute /Medical Group Pilot Grant Program
Nelson	Examine the Effects of Progestin and Vitamin D on Molecular Signals in High-Risk Fimbriae and Low-Risk Ampulla in the Fallopian Tube Epithelium in Pre- and Postmenopausal Women	NorthShore (Breast and Ovarian Research Program)
Nelson	Explore the Impact of Progestin and Vitamin D on Inflammation and Oxidative Stress in Early Carcinogenesis of Ovarian Cancer in In Vitro and In Vivo Models of the Disease	NIH Supplement
Rodriguez	GOG-218: A Phase III Trial of Carboplatin and Paclitaxel Plus Placebo vs. Carboplatin and Paclitaxel Plus Concurrent Bevacizumab (NSC #704865, IND #7921) Followed by Placebo, vs. Carboplatin and Paclitaxel Plus Concurrent and Extended Bevacizumab, in Women with Newly Diagnosed, Previously Untreated Stage III or IV Epithelial Ovarian, Primary Peritoneal Cancer	NorthShore
Rodriguez	GOG-0214: Phase II Double-Blind, Randomized Trial Evaluating the Biologic Effect of Levonorgestrel on the Ovarian Epithelium in Women at High Risk for Ovarian Cancer	NorthShore
Rodriguez	Development of a Progestin-Based Pharmacologic Approach for the Effective Prevention of Ovarian Cancer	The Auxiliary of NorthShore University HealthSystem
Rodriguez	A Phase III, Randomized, Double-Blind, Placebo-Controlled, Multicentre Study of Olaparib Maintenance Monotherapy in BRCA Mutated Relapsed Ovarian Cancer Patients Who Are in Complete or Partial Response Following Platinum-Based Chemotherapy, D0816C00002	AstraZeneca
Rodriguez	UC13-1235: A Randomized, Placebo-Controlled Phase II Trial of Metformin in Conjunction with Chemotherapy Followed by Metformin Maintenance Therapy in Advanced-Stage Ovarian, Fallopian Tube and Primary Peritoneal Cancer	University of Chicago

Investigator	Clinical Studies	Sponsor
Rodriguez	Investigation of Progesterone-Mediated Mechanisms of Cancer Prevention in the Fallopian Tube: Comparison of Fallopian Tubes from Postpartum vs. Non-Gravid Women	NorthShore
Rodriguez	Immortalization of Human Fallopian Tube Epithelial Cells Using Conditional Reprogramming	NorthShore
Rodriguez	Outpatient Platinum Desensitization Protocol for the Treatment of Gynecologic Malignancies	NorthShore
Rodriguez	NCI 9671: Exceptional Responders Pilot Study: Molecular Profiling of Tumors from Cancer Patients Who Are Exceptional Responders	National Cancer Institute (NCI)
Rodriguez	Effectiveness of a multivariable algorithm (PROMISS) in predicting ovarian malignancy in women with a pelvic mass	PROMISS Diagnostics
Rodriguez	Vitamin D and Progestins for the Chemoprevention of Fallopian Tube/Ovarian Cancer	NIH
Rodriguez	Molecular and Imaging Assessment of Fallopian Tube Health	NorthShore

DIVISION OF GYNECOLOGICAL PAIN AND MINIMALLY INVASIVE SURGERY

Investigator	Clinical Trial	Sponsor
Hellman	Novel Approaches to Investigation of Menstrual Pain	NorthShore
Hellman	Neurophysiological Diagnostics for Menstrual Pain	NIH
Hellman	Noninvasive imaging of uterine physiology to improve treatment for dysmenorrhea	NICHD
Hellman	Mechanistic Characterization of Uterine Pain (MCUP) to improve diagnosis and treatment for dysmenorrhea (R01HD098193-01)	NIH
Senapati	Registry for Gynecological Patients	NorthShore
Tu	Deciphering the Hormonal and Nociceptive Mechanisms Underlying Bladder Pain	NIH
Tu	Interstitial Cystitis: Examination of the Central Autonomic Network (R01)	Medical College of Wisconsin/NIH
Tu	Recruitment Registry for the Tu/Hellman Research Lab	NorthShore
Tu	Early Menstrual Pain Impact of Multisensory Hypersensitivity (1R01HD096332-01)	NIH
Tu	Examining the Role of Improved NSAID Management in Treating Dysmenorrhea	NorthShore

DIVISION OF MATERNAL-FETAL MEDICINE

Borders	Social Conditions in Pregnancy and Fetal Development	NIH/Northwestern University
Borders	Understanding socioeconomic disparities in perinatal risk: The role of epigenetic and transcriptional regulation in the placenta	NIH on Minority Health/ Northwestern University
Borders	Psychosocial Intervention, Maternal Inflammation and Birth Outcomes: Centering vs. Routine Prenatal Care (PIINC)	NIH
Borders	Inflammation in Group Prenatal Care: The PINC Cradle Study	NorthShore Research Institute/ Medical Group Pilot Grant Program
Borders	Stress and Maternal-Fetal Health During Pregnancy: Predicting Childhood Developmental Outcomes	NorthShore
Borders	COVID-19 and Perinatal Experiences (COPE)	NorthShore

Investigator	Clinical Studies	Sponsor
Borders	Impact of COVID-19 Infection on Placental Development and Pathology	Greenville Memorial Hospital
Borders	Police Brutality and Pregnancy	NorthShore
de los Reyes	Single Untreated Glucose and Risks (SUGAR) [ITM Grant]	NorthShore
de los Reyes	The Degree of Elevation of 1 Elevated Glucose Value on the Oral Glucose Tolerance Test and the Association with Large for Gestational Age Neonates	NorthShore
de los Reyes	Postpartum Educational Initiative to Improve Knowledge of Warning Signs of Severe Maternal Morbidity	NorthShore
de los Reyes	The Relationship Between Glucose Testing in an Index Pregnancy and Outcomes in a Subsequent Pregnancy: Implications for Screening Guidelines and a Novel Risk Calculator	NorthShore
de los Reyes	The Association Between Persistent Maternal Hypotension and Small for Gestational Age Neonates	NorthShore
de los Reyes	The Association Between Maternal Body Mass Index and the Risk of Perinatal Depression	NorthShore
Dinsmoor	A Randomized Trial to Prevent Congenital Cytomegalovirus (CMV) Infection	Northwestern University/NIH
Dinsmoor	Prevalence of CMV Infection in Placentas of Small for Gestational Age Neonates	NorthShore
Dinsmoor	Noninvasive Chromosomal Examination of Trisomy Study (NEXT Study)	MFMU
Keenan-Devlin	Interactions Between Perinatal Stress and Breastfeeding: Unpacking a Mechanism of Disparity	NorthShore Research Institute/ NorthShore Medical Group Pilot Grant Program
MacGregor, C.	Pitocin Stopped Before Delivery and Its Association with Postpartum Hemorrhage (PITSTOP)	NorthShore
Ouyang	Evaluation of Perinatal Drug Screening at NorthShore	NorthShore
Ouyang	Optimizing Outcomes in Multifetal Gestations: Does Identification of Asymptomatic Cervical Dilation Improve Outcomes Compared to Those Presenting with Symptomatic Preterm Labor?	NorthShore
Ouyang	Complications Associated with High-Dose Misoprostol Second-Trimester Induction Termination	The University of Chicago
Plunkett	An Observational Cohort Study to Evaluate Measures of Quality of Obstetric Care	NIH/NICHD/ Northwestern
Plunkett	Antenatal Late Preterm Steroids (ALPS): A Randomized Placebo-Controlled Trial	NIH/NICHD/ Northwestern
Plunkett	A Randomized Trial of Fetal ECG ST-Segment and T-Wave Analysis as an Adjunct to Electronic Fetal Heart Rate Monitoring (STAN)	National Heart, Lung, and Blood Institute (NHLBI)/ Genetic Association Information Network (GAIN) Foundation for the NIH
Plunkett	An Observational Study of Hepatitis C Virus in Pregnancy	NIH/NICHD/ Northwestern
Plunkett	Induction in Nulliparous Women at 39 Weeks to Prevent Adverse Outcomes: A Randomized Controlled Trial. A Randomized Trial of Induction vs. Expectant Management (ARRIVE) (part of Maternal-Fetal Network)	NIH/NICHD/ Northwestern
Plunkett	Exploring the Role of Complementary and Integrative Healthcare Providers in the Diagnosis and Treatment of Obesity	NorthShore

continued

Investigator	Clinical Studies	Sponsor
Plunkett	NICHD Maternal-Fetal Network (renewal of EH10-206)	NIH/NICHD/ Northwestern
Plunkett	Obstetric Research Registry	NorthShore
Plunkett	A Randomized Trial of Pessary and Progesterone for Preterm Prevention in Twin Gestation with a Short Cervix (PROSPECT)	NIH/NICHD/ Northwestern
Plunkett	Gestational Weight Gain in Women With and Without Pregestational Diabetes	NorthShore
Plunkett	A Randomized Trial of Pessary in Singleton Pregnancies with a Short Cervix (TOPS)	NIH/NICHD/ Northwestern
Plunkett	Tranexamic Acid for the Prevention of Obstetrical Hemorrhage After Cesarean Delivery: A Randomized Controlled Trial (TXA)	NIH/George Washington University/ Northwestern University
Plunkett	Depressive Symptoms in Maternal Obese Patients Compared to the Non-Obese Patient Population	NorthShore
Plunkett	MARS: Magnetic Resonance Study: A Novel Assessment of Placental Function	NorthShore
Plunkett	A Randomized Trial of Continuous Positive Airway Pressure (CPAP) for Sleep Apnea in Pregnancy (SLEEP)	NIH/NICHD/ Northwestern
Plunkett	Activity in Women at Risk for Early Delivery (AWARE)	NIH/NICHD/ Northwestern
Plunkett	Prescription After Cesarean Trial (PACT)	NIH/NICHD/ Northwestern
Plunkett	Preeclampsia Risk Assessment: Evaluating Cut-Offs to Improve Stratification (PRAECES)	Cedars-Sinai Medical Center

DIVISION OF OBSTETRICS AND GYNECOLOGY

Investigator	Clinical Trial	Sponsor
Hirsch	The Molecular Pathogenesis of Health Disparities in Infection-Induced Preterm Birth (R01HD041689)	NIH
Hirsch	The Role of Membrane Progesterone Receptors in Primary Myometrial Cells	NorthShore/ March of Dimes
Hirsch	A Novel Use of Surfactant Protein A (SP-A) to Prevent Preterm Delivery	Ferring Research Institute
Hirsch	Prevention of Preterm Birth Using the Collectin Surfactant Protein A (SP-A)	NIH
Hirsch	Surfactant Protein A (SP-A): A Novel Agent to Prevent Preterm Birth	NorthShore
Hirsch	Risk Factors for the Development of Abnormal Glucose Screening in Successive Pregnancies	NorthShore

DIVISION OF UROGYNECOLOGY AND RECONSTRUCTIVE SURGERY

Investigator	Clinical Trial	Sponsor
Gafni-Kane	A Prospective, Nonrandomized, Parallel Cohort, Multicenter Study of Xenform vs. Native Tissue for the Treatment of Women with Anterior/Apical Pelvic Organ Prolapse, Protocol U9920	Boston Scientific
Goldberg	The Risk of Cognitive Impairment in Patients Starting Anticholinergic Medications to Treat Overactive Bladder: A Prospective Trial	NorthShore
Lozo	What are the factors that influence continuation or termination of overactive bladder treatment with intravesical Botox?	NorthShore
Moss	Interstitial Cystitis Pain Improvement with Naltrexone (IC PaIN) Trial	NorthShore
Pincus	Antibiotic Suppression for Recurrent Urinary Tract Infections and Its Effect on the Urinary Microbiota and Mycobiota in Post-Menopausal Women	NorthShore/ Innovation Award
Winer	The Effect of Mid-Urethral Sling on the Urethral Dynamic Shape and Motion	NorthShore
Rostami Nia	Obstructed Defection Systems Severity and Degree of Rectal Laxity Detected on Pelvic Floor Dynamic Ultrasound	NorthShore
Rostami Nia	Operations and Pelvic Muscle Training in the Management of Apical Support Loss (OPTIMAL)	NorthShore
Rostami Nia	A Randomized Trial of Colpopexy and Urinary Reduction Efforts (CARE)	NorthShore
Rostami Nia	Analysis and Comparison of Pelvic Viscera and Floor Dynamic Function During Squeeze, Strain and Evacuation in Normal, Healthy Controls with Women with Pelvic Floor Dysfunction	NorthShore
Rostami Nia	Mesh-Free Suture Urethropexy for Treating Stress Urinary Incontinence: Efficacy and Durability Trial	NorthShore
Sand	Functional Bladder Capacity as an Objective Measure of Response to Intravesical Treatment of Newly Diagnosed Interstitial Cystitis: A Prospective, Randomized Trial	NorthShore
Sand	A Prospective, Nonrandomized, Parallel Cohort, Multicenter Study of Uphold LITE vs. Native Tissue for the Treatment of Women with Anterior/ Apical Pelvic Organ Prolapse	Boston Scientific
Sand	Pivotal Study of Subcutaneous Tibial Nerve Stimulation with eCoin for Overactive Bladder (OAB) with Urinary Urge Incontinence	Valencia Technologies

PERINATAL DEPRESSION PROGRAM

Investigator	Clinical Trial	
Kim	Mobile MOMS (Moms Overcoming Mood Symptoms)	NorthShore Research Institute/ NorthShore Medical Group Pilot Grant Program
Kim	Demographic and Obstetric Determinants of Item Response on the Edinburgh Postnatal Depression Scale	NorthShore
La Porte	Perinatal Depression Hotline Database	NorthShore
Silver	CTSA-Clinical Research Collaborative Support Program	CTSA
Silver	Genetic Exploration of Maternal Mood (GEMM)	NorthShore
Silver	Responsive eHealth Intervention for Perinatal Depression in Healthcare Settings (SBIR) (MMB)	IH/Oregon Research Behavioral Intervention Strategies
Silver	ITM 2.0: Advancing Translational Science in Metropolitan Chicago—KL2 Component (CHATBOT)	NIH/The University of Chicago
Silver	Pilot Study of Computer-Adaptive Technology for Perinatal Mood Disorder Screening During and After Pregnancy	NorthShore
Silver	Scaling Up Psychological Treatments for Perinatal Depression and Anxiety Symptoms via Telemedicine (SUMMIT)	Patient-Centered Outcomes Research Institute (PCORI)

Staff

The Department realized important growth in new members in 2019 and 2020. Each is playing a critical role in reaching our goals of outstanding clinical care, leading academics, and recognized research.

Department Growth

Sarah A. Ackroyd, MD, received her medical degree from University of Rochester School of Medicine and Dentistry and completed her residency in Obstetrics and Gynecology at Temple University Hospital. She is pursuing fellowship training in the University of Chicago/NorthShore University HealthSystem Gynecologic Oncology program.

Elaine T. Aguinaldo, DO, received her medical degree from Midwestern University and completed her residency in Obstetrics and Gynecology and chief residency from NYU Lutheran Medical Center, Brooklyn, New York. She is currently in practice at Erie Family Health Center.

Alla Bodner, MD, received her medical degree from Ross University School of Medicine–Portsmouth, Dominica, and completed her residency in Obstetrics and Gynecology at Mount Sinai Hospital. She is currently in practice with Women's Health Specialists.

Nicole Brady, MSN, FNP-BC, received her Master of Science degree from Northern Illinois University. She is serving as a Family Nurse Practitioner with Women's Health Specialists.

Joseph Capezio, MD, received his medical degree from the University of Illinois and completed his residency in Obstetrics and Gynecology at Parkland Memorial Hospital. He is currently in practice with Women's Health Specialists.

Catherine T. Chen, MD, received her medical degree from Chicago Pritzker School of Medicine. She is currently in practice at Erie Family Health Center.

Emma Clear, DO, received her medical degree from A.T. Still University-Kirksville College of Osteopathic Medicine and completed her residency in Obstetrics and Gynecology at the University of Chicago. She is currently in practice at Midwest Center for Women's Health.

Emily Cleveland, BA, BS, received her Bachelor of Arts and Bachelor of Science degrees at Millikin University. She is currently serving as a Research Coordinator in the Perinatal Depression Program.

Richard Cockrum, MD, received his medical degree from the University of Alabama-Birmingham School of Medicine and completed his residency in Obstetrics and Gynecology at the University of Chicago. He is pursuing fellowship training in the NorthShore University HealthSystem/University of Chicago Minimally Invasive and Gynecologic Surgery program.

Andrew Deutsch, MD, MS, received his medical degree from Rosalind Franklin University of Medicine and Science and completed his residency in Obstetrics and Gynecology at Advocate Lutheran General Hospital. He is currently in practice with Women's Health Specialists.

Katlyn Dillane, BS, received her Bachelor of Science degree from Loyola University. She is currently serving as a Research Coordinator in the Division of Gynecological Pain and Minimally Invasive Surgery.

Christine Duffy Levy, LCSW, received her Master of Arts degree in Clinical Social Work from the University of Chicago School of Social Service Administration. She is a licensed clinical social worker and is serving as a Perinatal Family Support Specialist in the Perinatal Family Support Center.

Andrew P. Ewbank, MD, received his medical degree from Northwestern University Feinberg School of Medicine and completed his residency at the University of Cincinnati Medical Center. He is currently in practice at Erie Family Health Center.

Lauren Gilbert, LSW, received her Master of Arts degree in Social Work from the University of Illinois at Chicago. She is a licensed social worker and is serving as a Perinatal Family Support Specialist in the Perinatal Family Support Center.

Elie Hobeika, MD, received his medical degree from Université Saint Joseph, Beirut, Lebanon, completed his residency in Obstetrics and Gynecology from Hofstra/Northwell School of Medicine at Staten Island University Hospital and his fellowship in Reproductive Endocrinology and Infertility at the University of Illinois at Chicago. He is currently in practice with Fertility Centers of Illinois.

Caroline M. Hoke, MD, received her medical degree from the University of North Carolina School of Medicine and completed her residency in Obstetrics and Gynecology at University of North Carolina Hospitals. She is currently in practice at Erie Family Health Center.

Jennifer Jaume, CNM, received her Master of Science, Nurse Midwifery from the University of Illinois at Chicago. She is currently in practice at North Shore Associates in Gynecology and Obstetrics.

Melissa Javellana, MD, received her medical degree from the University of Illinois College of Medicine and completed her residency in Obstetrics and Gynecology at the University of Chicago. She is pursuing Gynecologic Oncology fellowship training in the University of Chicago/NorthShore Division of Gynecologic Oncology program.

Department Growth *continued*

Deborah Johnson, CNM, received her Master of Science, Maternal Child Health from Rush University. She is serving as a certified nurse midwife with Women's Health Services.

Katherine Kearns, RN, received her Bachelor of Science in Nursing from Loyola University. She is serving as a research nurse in NorthShore's Maternal-Fetal Medicine Unit (MFMU).

Melissa Keene, MD, received her medical degree from Northwestern University Feinberg School of Medicine and completed her residency in Obstetrics and Gynecology at McGaw Medical Center of Northwestern University. She is currently in practice with Midwest Center for Women's HealthCare.

Ryan Kooperman, DO, received his medical degree from the Chicago College of Osteopathic Medicine and completed his residency in Obstetrics and Gynecology at Midwestern University/ OPTI: Presence-Resurrection Healthcare Consortium. He is currently in practice in the NorthShore Medical Group with Drs. Dori Becker, Brian Carroll, Therese Hughes, Rebecca Jacobson, Brenda Kim and Leslie Oshin.

Jenny Liem, DO, received her medical degree from Chicago College of Osteopathic Medicine, Midwestern University and completed her residency in Obstetrics and Gynecology at Cedars-Sinai Medical Center. She is currently in practice at Erie Family Health Center.

Melissa H. Lippitt, MD, MPH, received her medical degree from Northwestern University Feinberg School of Medicine and completed her residency and fellowship in Obstetrics and Gynecology from Johns Hopkins University. She is currently in practice at NorthShore Medical Group.

Carla Loly, MD, received her medical degree from Saint Louis University Doisy College of Health Sciences and completed her residency in Obstetrics and Gynecology at the University of Illinois at Chicago Medical Center. She is currently in practice with Women's Health Specialists.

Nani Moss, MD, MPH, received her medical degree from Albany Medical College and completed her residency in Obstetrics and Gynecology at Albany Medical Center. She is pursuing Urogynecologic fellowship training in the NorthShore Division of Urogynecology and Reconstructive Surgery.

Josephine Nowak, CNM, received her degree from the University of Michigan School of Nursing. She is serving as a certified nurse midwife with North Shore Associates in Gynecology and Obstetrics.

Elizabeth Perelman, MD, received her medical degree from Drexel University College of Medicine and completed her residency in Obstetrics and Gynecology at Rush University Medical Center. She is currently in practice at North Shore Associates in Gynecology and Obstetrics.

David Preskill, MD, received his medical degree from Northwestern University and completed his residency in Obstetrics and Gynecology at Columbus-Cabrini Medical Center. He is currently practicing in the Lake County area.

Genevieve Roth, BS, received her Bachelor of Science degree at Loyola University. She is currently serving as a Research Coordinator in the Division of Gynecological Pain and Minimally Invasive Surgery.

Carmen Sandford, LCSW, received her Master of Social Work degree from the University of Michigan. She is a licensed clinical social worker and is serving as a Perinatal Family Support Specialist in the Perinatal Family Support Center.

Dorina Scaunas, MD, received her medical degree from Loyola University and completed her residency in Obstetrics and Gynecology at the University of Illinois at Chicago. She is currently in practice with Women's Health Specialists.

Julie Snow, MD, received her medical degree from the University of Illinois at Chicago College of Medicine and completed her residency in Obstetrics and Gynecology at University of Chicago Hospitals. She is currently in practice with Women's Health Specialists.

Margaret M. Sullivan, APN-CNP, received her master's degree from Virginia Commonwealth University, Medical College of Virginia. She is currently in practice at NorthShore University HealthSystem.

Sunitha Suresh, MD, received her medical degree from Johns Hopkins School of Medicine and completed her residency in Obstetrics and Gynecology from Johns Hopkins Hospital. She is currently pursuing fellowship training in the NorthShore University HealthSystem/University of Chicago Maternal-Fetal Medicine program.

Soujanya Tummuru, DO, received her medical degree from Chicago College of Osteopathic Medicine and completed her residency in Obstetrics and Gynecology from Good Samaritan Hospital Medical Center. She is currently in practice with Women's Health Specialists.

Amy Wasserman, MPH, APN, CNM, received her Master of Science, Nurse Midwifery degree from the University of Illinois at Chicago. She is currently in practice at North Shore Associates in Gynecology and Obstetrics.

Joel D. Winer, MD, MHS, received his medical degree from Yale University School of Medicine. He is pursuing fellowship training in the University of Chicago/NorthShore University HealthSystem Female Pelvic Medicine and Reconstructive Surgery program.

Michelle Wyszomirski, DO, received her medical degree from Kansas City University of Medicine and Biosciences and completed her residency in Obstetrics and Gynecology from Loyola University Medical Center. She is currently in practice at Erie Family Health Center.

Service to the Department Committees

Executive Committee

Suzanne Ashby, DO
Carol Ellman, MD
Roger Goldberg, MD, MPH
Emmet Hirsch, MD
Michael Hughey, MD
Rebecca Jacobson, MD
Marion Jelcz, MD
Sigal Klipstein, MD
Gaye Koconis, CNM
Scott MacGregor, DO
Jeremy Miller, MD
Mark Neerhof, DO
Beth Plunkett, MD, MPH
Barrett Robinson, MD, MPH
Gustavo Rodriguez, MD
Sangeeta Senapati, MD, MS
Richard Silver, MD[1]
Erica Smith, MD
Frank Tu, MD, MPH
Aiisya Williamson, FACHE

Gynecologic Quality Committee

Louis Alford, MD[3]
Carol Ellman, MD
Richard Cockrum, MD
Elizabeth Forbes, MD
Pamela Goodwin, MD
Susan Kramer, MD
Jeremy Miller, MD[1]
Ghazaleh Rostami Nia, MD, MSc
Frank Tu, MD, MPH
Megan Valassis, MD
Maria Villanueva, RN, MSN[8]
Mary Tilley Jenkins Vogel, MD

Ex-Officio
Richard Silver, MD

Obstetrics Multidisciplinary Performance Improvement Committee

David Alspach, MD[3]
Cheryl Bauer, RN, MSN, NEA-BC[2]
Gabriella Clay, RN
Ian Grable, MD, MPH
Marion Jelcz, MD
Karen Kelly, PharmD[8]
Mark Neerhof, DO[1]
Jennifer Roeder, RN
Myra Sabini, BSN, RNC-OB, C-EFM
Mona Shah, MPH[10]
Erica Smith, MD
Maria Villanueva, RN, MSN[8]
Teresa Zeller, RN

Obstetrics Practice Committee

Kathleen Arrecis, RN
Cheryl Bauer, RN, MSN, NEA-BC
Linda Holt, MD
Rebecca Jacobson, MD
Marion Jelcz, MD
Karen Kelly, PharmD[7]
Jo Kim, PhD
Edward Lee, MD
Halley Martin, RN
Mark Neerhof, DO
Jennifer Roeder, RN
Lauren Thorpe, MD
Shelly Tien, MD, MPH[1]
Miriam Whiteley, MD[6]
Lawrence Yeager, MD

Perinatal Quality Review Committee

Bernhard Allgaier, MD[7]
Kathleen Arrecis, RN
Leilah Backhus, MD
Cheryl Bauer, RN, MSN[1] NEA-BC
Tina Edwardson, RN
Linda Ernst, MD[5]
Brandy Frost, MD[9]
Suzanne Guy, MS, RN
Janice Hopson
Marion Jelcz, MD
Debora Lesnick, CNM
Dietra Millard, MD[9]
Jeremy Miller, MD
Sarah Nee, RN
Cheryl Nieslawski, RN
David Ouyang, MD
Laura Pearlman, MD, MBA
Barrett Robinson, MD, MPH[1]
Jean Ruth, MD
Myra Sabini, BSN, RNC-OB, C-EFM[2]
Prerna Suri, MD
Luisa Trujillo[4]
Maria Villanueva, RN, MSN[8]
Susan Warner, MD
Emily White VanGompel, MD, MPH[6]

Ex-Officio
Michael Caplan, MD
Richard Silver, MD
Mark Neerhof, DO

1 Chair
2 Co-Chair
3 Anesthesiology
4 Risk Management
5 Pathology
6 Family Medicine
7 Pharmacy
8 Quality Improvement
9 Neonatology
10 Infection Control

2019–2020 Staff Directory

Obstetricians/Gynecologists, Certified Nurse Midwives, Sub-Specialists and Doctoral Researchers of NorthShore University HealthSystem

GYNECOLOGIC ONCOLOGY

Sarah Ackroyd, MD*
Raanan Alter, MD*
Melissa Javellana, MD*
Mary Tilley Jenkins Vogel, MD
Carolyn Kirschner, MD
Melissa Lippitt, MD, MPH
Elena Moore, MD
Omar Nelson, PhD
Gustavo Rodriguez, MD

Kellogg Cancer Center
2650 Ridge Avenue
Evanston, IL 60201
(847) 570-2639

757 Park Avenue West
Highland Park, IL 60035
(847) 570-2639

2180 Pfingsten Road
Glenview, IL 60026
(847) 570-2639

John Knaus, DO
5747 Dempster Street
Ste. 100
Morton Grove, IL 60053
(847) 663-1030

GYNECOLOGICAL PAIN AND MINIMALLY INVASIVE SURGERY

Richard Cockrum, MD*
Gerald Gebhart, PhD
Kevin Hellman, PhD
Matthew Kmiecik, PhD
Sangeeta Senapati, MD, MS
Frank Tu, MD, MPH

9650 Gross Point Road
Ste. 3900
Skokie, IL 60076
(847) 926-6544

757 Park Avenue West
Ste. 3870
Highland Park, IL 60035
(847) 926-6544

GYNECOLOGY

Margaret Salamon, MD

9650 Gross Point Road
Ste. 3900
Skokie, IL 60076
(847) 677-1400

Joyce Chams, MD

2601 Compass Road
Ste. 115
Glenview, IL 60026
(847) 998-4637

Janice Johnson, MD

10024 Skokie Blvd.
Ste. 308
Skokie, IL 60077
(224) 233-1020

MATERNAL-FETAL MEDICINE

Ann Borders, MD, MSc, MPH
Samantha de los Reyes, MD*
Nicolina Docheva, MD *
Ian Grable, MD, MPH
Lauren Keenan-Devlin, PhD
Patricia Lee King, PhD
Caitlin MacGregor, MD*
Scott MacGregor, DO
Greg Miller, PhD
Mark Neerhof, DO
David Ouyang, MD
Beth Plunkett, MD, MPH
Barrett Robinson, MD, MPH
Gina Russano, CNM
Richard Silver, MD
Sunitha Suresh, MD*
Erin Tran, MD

2650 Ridge Avenue
Ste. 1420
Evanston, IL 60201
(847) 570-2860

OBSTETRICS/ GYNECOLOGY

Valerie Allen, MD
Suzanne Ashby, DO
Leilah Backhus, MD
Mary Conte, MD
Emmet Hirsch, MD
Joanna Horwitz, MD
Elizabeth Marsh, MD
Charla Simon, MD
Prerna Suri, MD
Kerry Swenson, MD, PhD
Lauren Thorpe, MD
Lawrence Yeager, MD

9650 Gross Point Road
Ste. 1900
Skokie, IL 60077
(847) 933-1773

6810 N. McCormick Blvd.
Lincolnwood, IL 60712
(847) 933-1773

1000 Central Street
Ste. 620
Evanston, IL 60201
(847) 933-1773

1515 Sheridan Road
Wilmette, IL 60091
(847) 933-1773

6450 W. Touhy Avenue
Niles, IL 60714
(847) 583-1000

OBSTETRICS/GYNECOLOGY *(continued)*

Emma Clear, DO
Carol Ellman, MD
Elizabeth Forbes, MD
Amy Henriott, MD
Stephanie Heraty, MD
Karyn Grimm Herndon, MD
Narissa Jill Hoprasart, MD
Melissa Keene, MD
Jeremy Miller, MD
Ronald Miller, MD
Miriah Plawer, MD

1000 Central Street
Ste. 700
Evanston, IL 60201
(847) 869-3300

3633 West Lake Avenue
Ste. 204
Glenview, IL 60026
(847) 869-3300

Pamela Goodwin, MD
Jennifer Jaume, CNM
Kim Johnson, MD
Gaye Koconis, CNM
Debora Lesnick, CNM
Josephine Nowak, CNM
Elizabeth Perelman, MD
Mary Rigoni, CNM
Jean Ruth, MD
H. Jacob Saleh, MD
Sarah Sumagin, CNM
Amy Wasserman, MPH, CNM

328 Linden Avenue
Wilmette, IL 60091
(847) 475-1224

2550 Compass Road
Unit J
Glenview, IL 60026
(847) 998-9600

*2020 Fellow

OBSTETRICS/GYNECOLOGY
(continued)

Cheryl Axelrod, MD
Claudia del Busto, MD
Marcia Krause, MD
Laura Pearlman, MD, MBA

4905 Old Orchard Center
Ste. 200
Skokie, IL 60077
(847) 673-3130

Kristin Dold Bennett, DO
Marion Jelcz, MD
Kenneth Nelson, MD
Ann Schufreider, MD

4905 Old Orchard Center
Ste 200
Skokie, IL 60077
(847) 869-5800

135 N. Arlington Heights Road
Ste. 101
Buffalo Grove, IL 60089
(847) 537-5200

Jennifer J. Kim, MD
Chimene Pellar, MD
Susan L. Warner, MD

1000 Central Street
Ste. 717
Evanston, IL 60201
(847) 864-1200

2501 Compass Road
Ste. 130
Glenview, IL 60026
(847) 864-1200

Judith Cothran, MD

4905 Old Orchard Center
Ste. 200
Skokie, IL 60077
847-923-6155

45 W. 111th Street
3rd Floor Clinics
Chicago, IL 60628
(773) 995-3466

OBSTETRICS/GYNECOLOGY
(continued)

Dori Becker, MD
Brian Carroll, DO
Therese Hughes, MD
Rebecca Jacobson, MD
Brenda Kim, DO
Ryan Kooperman, DO
Leslie Oshin, MD

650 W. Lake Cook Road
Buffalo Grove, IL 60089
(847) 432-1558

7900 Rollins Road
Ste. 1100
Gurnee, IL 60031
(847) 432-1558

757 Park Avenue West,
Ste. 2800
Highland Park, IL 60035
(847) 432-1558

915 S. Waukegan Road
Ste. 200
Lake Forest, IL 60045
(847) 432-1558

1000 E. Rollins Road
Round Lake Beach, IL 60073
(847) 432-1558

Carl Buccellato, MD
Joby George, MD
Susan Kramer, MD
Edward Lee, MD
Erica Smith, MD
Mary Faith Terkildsen, MD
Megan Valassis, MD

49 S. Waukegan Road
Ste. 100
Deerfield, IL 60015
(847) 941-7600

15 Tower Court, Ste. 300
Gurnee, IL 60031
(847) 941-7600

757 Park Avenue West,
Ste. 2800
Highland Park, IL 60035
(847) 941-7600

1329 N. Wolf Road
Mount Prospect, IL 60056
(847) 941-7600

225 N. Milwaukee Avenue
Vernon Hills, IL 60061
(847) 941-7600

OBSTETRICS/GYNECOLOGY
(continued)

Idries Abdur-Rahman, MD
Jamil Abdur-Rahman, MD

3 S. Greenleaf Street
Ste. A
Gurnee, IL 60031
(847) 244-0222

Alla Bodner, MD
Nicole Brady, CNP
Joseph Capezio, MD
Stephanie Conn, CNM
Andrew Deutsch, MD
Deborah Johnson, CNM
Carla Loly, MD
Dorina Scaunas, MD
Julie Snow, MD
Soujanya Tummuru, MD

18931 W. Washington Street
Ste. 100
Third Lake, IL 60030
(847) 692-9234
1875 Dempster Street
Ste. 245
Park Ridge, IL 60068
(847) 692-9234

Dianna Kim, MD
Sarah Wong, MD

250 East Center Drive
Ste. 101
Vernon Hills, IL 60061
(847) 918-7050

Karen Mass, MD

900 N. Westmoreland Road
Ste. 223
Lake Forest, IL 60045
(847) 295-0433

1475 E. Belvidere Road
Ste. 212
Grayslake, IL 60030
(847) 295-0433

OBSTETRICS/GYNECOLOGY
(continued)

David Preskill, MD

1893 Sheridan Road
Ste. 301
Highland Park, IL 60035
(847) 362-0100

Robert Rosenberg, MD

1170 E. Belvidere Road
Ste. 102
Grayslake, IL 60030
(847) 548-9999

Sheri Schreiber, MD

222 S. Greenleaf Street
Ste. 112
Gurnee, IL 60031
(847) 336-8472

Catherine T. Chen, MD
Andrew P. Ewbank, MD
Caroline M. Hoke, MD
Michelle A. Wyszomirski, DO

2323 Grand Avenue
Waukegan, IL 60085
(847) 666-3312

REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

Anne Borkowski, MD

4250 Dempster Street
Skokie, IL 60076
(847) 763-8850

Susan Davies, MD

2640 Patriot Blvd.
Ste. 260
Glenview, IL 60026
(847) 972-0300

Sigal Klipstein, MD
Elizabeth Puscheck, MD

1585 N. Barrington Road
Ste. 406
Hoffman Estates, IL 60169
(847) 884-8884

1535 Lake Cook Road
Ste. 506
Northbrook, IL 60062
(847) 884-8884

880 W. Central Road
Ste. 3400
Arlington Heights, IL 60005
(847) 884-8884

REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY *(continued)*

Jennifer Hirshfeld-Cytron, MD
Elie Hobeika, MD
Laurence Jacobs, MD
Brian Kaplan, MD
Edward L. Marut, MD
John Rapisarda, MD
Allison Rodgers, MD

767 Park Avenue West
Ste. 190
Highland Park, IL 60035
(847) 433-4400

3703 W. Lake Avenue
Ste. 106
Glenview, IL 60026
(847) 998-8200

135 N. Arlington Heights Road
Ste. 195
Buffalo Grove, IL 60089
(847) 215-8899

2260 W. Higgins Road
Ste. 200
Hoffman Estates, IL 60169
(847) 843-1510

2592 E. Grand Avenue
Ste. 208
Lindenhurst, IL 60046
(847) 356-0483

900 N. Kingsbury Street
Ste. RW6
Chicago, IL 60610
(312) 222-8230

REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY *(continued)*

Shweta Nayak, MD
John Rinehart, MD, PhD, JD

2500 Ridge Avenue
Ste. 308
Evanston, IL 60201
(847) 869-7777

233 E. Erie Street
Ste. 307
Chicago, IL 60611
(312) 664-0305

1535 Lake Cook Road
Ste. 102
Northbrook, IL 60062
(224) 261-8710

2425 W. 22nd Street
Ste. 200
Oak Brook, IL 60523
(630) 403-0072

5851 W. 95th Street
Ste. 117
Oak Lawn, IL 60453
(708) 741-7012

471 W. Army Trail Road
Ste. 105
Bloomingdale, IL 60108
(630) 221-8131

UROGYNECOLOGY

Sonia Dutta, MD
Adam Gafni-Kane, MD
Roger Goldberg, MD, MPH
Nani Moss, MD, MPH*
Joseph Pincus, MD*
Ghazaleh Rostami Nia, MD, MSc
Peter Sand, MD
Joel Winer, MD *

2050 Pfingsten Road
Ste. 128
Glenview, IL 60026
(224) 251-2374

15 Tower Court
Ste. 300
Gurnee, IL 60031
(224) 251-2374

757 Park Avenue West
Ste. 3870
Highland Park, IL 60035
(224) 251-2374

9650 Gross Point Road
Ste. 3900
Skokie, IL 60076
(224) 251-2374

225 N. Milwaukee Avenue
Vernon Hills, IL 60061
(224) 251-2374

Marko Jachtorowycz, MD

5747 Dempster Street
Ste. 100
Morton Grove, IL 60053
(847) 663-1030

Michael Noone, MD
Brett Vassallo, MD

1875 W. Dempster
Ste. 665
Park Ridge, IL 60068
(847) 825-1590

*2020 Fellow

Champions for Women's Health

In the Department of Obstetrics and Gynecology, philanthropic gifts help us to innovate, to extend the frontiers of medicine and to develop and apply the cures of tomorrow.

Thanks to donors, we pursue ground breaking research, train the next generation of specialists and continuously improve the quality of the patient experience. Philanthropy also helps us offer highly personalized, compassionate care to all members of our community, including those who are economically challenged and the medically underserved.

The past year was immensely challenging for healthcare workers and patients, but the community responded with incredible generosity;

- 3000+ donors gave to the COVID-19 Response Fund
- 10,000+ free COVID-19 Care Kits were given away with the help of philanthropy
- More than $3 million raised to support the ongoing costs and research of COVID-19

NorthShore Tackles Maternal Mortality through SAVE MOMS

In the United States, maternal mortality is on the rise and NorthShore has developed an innovative solution. SAVE MOMS uses the electronic health record to continuously track maternal health, alerting the healthcare team before, during and after delivery to avoid serious complications through timely intervention. Up to 75% of maternal deaths in Illinois are thought to be potentially preventable. This data- driven solution alerts the healthcare team to monitor and provide treatment to avert a disaster. SAVE MOMS was funded through the volunteer fundraising efforts of The Auxiliary of NorthShore via proceeds from the 2020 and 2021 American Craft Exposition, which was held virtually in 2020 as it will be again this fall.

In Memory of Dr. William Banzhaf

A new charitable fund was established and named in honor of William 'Bill' Banzhaf, MD. Led by donations from his friends, family and colleagues, The William C. Banzhaf, MD, Fund of Obstetrics and Gynecology Education raised over $100,000 from more than 250 donors to honor his legacy. Contributions to this fund support recognition and enrichment for second, third and fourth year residents in Obstetrics and Gynecology as they prepare for a career in women's health. Dr. Banzhaf was a dedicated teacher; always compassionate and caring with his students, generously sharing his time and brilliant medical knowledge of complex women's health issues. Even while dealing with his own health challenges, Dr. Banzhaf remained steadfast in his commitment to develop young medical talent. He will be dearly missed.

Since 2019, the Department gratefully received $540,945 in charitable support from 333 donors. The impact of these gifts can be felt across our entire Department and by every patient and family we are privileged to serve.

Thanks to our donors:

- The Perinatal Family Support Center (PFSC) provided support to more than 3,000 families coping with significant challenges ranging from complicated pregnancy to infant loss. The PFSC team of social workers provides emotional support, community resources and crisis intervention free of charge to all who need our help.
- Dr. Frank Tu has made exciting progress in the understanding of women's pain conditions and how to better prevent and treat them.
- Dr. Richard Silver led several initiatives to identify and treat mothers and expecting mothers coping with perinatal depression.
- Underserved patients with ovarian cancer received integrative medicine services like acupuncture and nutritional counseling free of charge.
- Dr. Gustavo Rodriguez continued his progress toward identifying a pharmacologic approach to preventing ovarian cancer. Dr. Rodriguez is also privileged to hold the Matthews Family Chair of Gynecologic Oncology Research, supported by the Edward Matthews family. "The Matthews chair gives me the ability to actively pursue my research with even greater intensity. It's an honor and a privilege to have the trust and support of donors like the Matthews," he said.

At no time since 1891, when charitable efforts established Evanston Emergency Hospital, has philanthropy played such a vital role in NorthShore successfully fulfilling our mission "to preserve and improve human life." We are proud of our tradition of establishing rewarding partnerships with friends who believe in our mission, and who wish to join us in making a positive difference in women's lives through the improved delivery of obstetrical and gynecological healthcare.

Thank you to all our supporters, volunteers, friends and donors who enable us to provide our highest level of care to all our patients that we are so privileged to serve.

Dr. Gustavo Rodriguez, Matthews Family Chair of Gynecologic Oncology Research

NorthShore
University HealthSystem

Department of Obstetrics and Gynecology
Walgreen Building, Ste. 1507
2650 Ridge Avenue
Evanston, IL 60201
(847) 570-2521

northshore.org

A publication of the Department of Obstetrics and Gynecology
Editor: Aiisya Williamson, Senior Director, Women's Health
Photography: Jon Hillenbrand, Allen Bourgeois

NON-PROFIT
U.S. POSTAGE
PAID
NORTHSHORE
UNIVERSITY
HEALTHSYSTEM

Mixed Sources
FSC

Transforming Women's Healthcare

NorthShore University HealthSystem is steadfastly committed to serving patients, families and our community. With our team of excellent physicians and our investment in the most advanced technology, we are providing the finest in prevention, diagnosis, treatment and compassionate care to those we are privileged to serve. To learn more about NorthShore Obstetrics and Gynecology, visit **northshore.org/obgyn**.

NorthShore Evanston Hospital

NorthShore Glenbrook Hospital

NorthShore Highland Park Hospital

NorthShore Skokie Hospital

NorthShore Evanston Hospital
2650 Ridge Avenue, Evanston, IL 60201
(847) 570-2000

NorthShore Glenbrook Hospital
2100 Pfingsten Road, Glenview, IL 60026
(847) 657-5800

NorthShore Highland Park Hospital
777 Park Avenue West, Highland Park, IL 60035
(847) 432-8000

NorthShore Skokie Hospital
9600 Gross Point Road, Skokie, IL 60076
(847) 677-9600

NorthShore Medical Group
1301 Central Street, Evanston, IL 60201
(847) 570-5235

NorthShore Foundation
1033 University Place, Suite 450, Evanston, IL 60201
(224) 364-7200

NorthShore Research Institute
1001 University Place, Evanston, IL 60201
(224) 364-7100